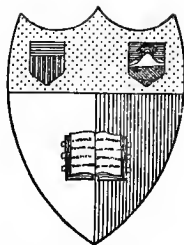


PROGRESSIVE DESIGN  
FOR STUDENTS.  
J. WARD.





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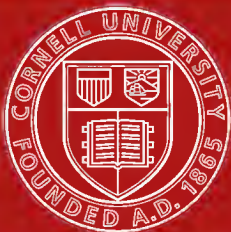
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# PROGRESSIVE DESIGN FOR STUDENTS





# PROGRESSIVE DESIGN FOR STUDENTS

BY

JAMES WARD

AUTHOR OF "PRINCIPLES OF ORNAMENT," "HISTORIC ORNAMENT," ETC.

*WITH FORTY-TWO ILLUSTRATIONS*

LONDON: CHAPMAN AND HALL, LIMITED

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## PREFACE

THIS Work on Ornamental Design, as its title indicates, consists of a series of “Progressive” Lessons in Elementary and Applied Design, such as a Master might give to a class of pupils who are desirous to obtain a knowledge of the subject. The author has practised the method laid down in the book when giving instruction to classes in the elementary and advanced stages of design, and has found that the course of study therein recommended has produced some fairly satisfactory results.

The illustrations and examples of design are all based on Nature, and have been conventionalised or treated to suit the requirements of the space or object to which the decoration is applied.

It is to be hoped that the book will be useful to Masters of our Primary Schools when instructing large classes in rudimentary design, and to Students and Masters of Art Schools and Classes also, from the progressive nature of the studies illustrated and explained. As to the practice

and principles of ornament, it is hoped that any one, who is anxious for a knowledge of the subject, will find the book an aid to his advancement in the study of design and ornament.

A number of drawings are given, from Nature, of Flowers, Leaves, Foliage, Birds, Insects, &c., which Students may find useful as material for the units of their essays in design, and lastly, one of the features of the book is the explanation of some of the rudimentary but important laws and principles, which should guide the young Student in the Art of designing ornament and decoration.

JAMES WARD.

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# PROGRESSIVE DESIGN FOR STUDENTS

## CHAPTER I

### INTRODUCTORY

ANY one who has gained an elementary knowledge of drawing, derived from making copies of simple ornamental or natural forms, may be taught the principles and may begin the practice of rudimentary design in ornament. To provide himself with material, to be used as units, or elements, for his first attempts in design, it is only necessary that the student should be able to draw, with the pencil or brush, some fair representations of simple flowers and leaves of plants from nature ; or if there should be any difficulty in obtaining characteristic natural forms for study in the schools, the master should draw some simple examples of leaves or flowers on the blackboard, as units for the proposed composition in design, or the pupils should be allowed to copy some well-drawn and accurate illustrations from nature for this purpose. The word "accurate" is not used

here to imply that the copies should be imitated from nature in a photographic sense, but that they should be truthful in a general way, showing the correct growth and spirit of the natural specimen, and should be drawn more in elevation than in perspective. The importance of having good and accurate examples of drawings from nature and pictorial art on the walls of our schools may be illustrated by the following example of "how not to do it." The writer, when visiting one of our public schools, saw some coloured lithographic examples of plant drawings on the walls, intended for the use of the designing class ; one of these was named the " Common Wild Rose ;" but it was anything but common, for this libel of nature was represented with four petals instead of the usual five, and further, the lower leaves were arranged on the leaf stalk alternately, instead of growing opposite as they do in nature !

Very few kinds of plants have been used as ornament in decorative design, considering the vast storehouse of nature in this direction. Ancient and medieval artists, and even modern artists have been contented with a limited choice. Egypt and Assyria used the lotus, lily, papyrus, palm and daisy. The ivy, olive, fir tree, and oak, honeysuckle, and acanthus, were chiefly used by the Greeks, and later by the Romans and artists of the Renaissance period (thirteenth to seventeenth century) ; medieval or Gothic artists, including the earlier Romanesque and Byzantine decorators, used the vine, lily, passion-flower, maple and trefoil, plants which had symbolic meanings.

The Chinese kept to the peony and chrysanthemum, the Japanese to the bamboo, fir tree, cherry and almond trees, and the Saracens adopted a peculiar form of leaf in their ornament, which is not exactly a leaf. The Persians in their older work affected the Indian and Chinese natural forms, but in their later work show an artistic appreciation of many well-known flowers, such as the tulip, the rose, the aster and hyacinth, but few plants, considering the numerous varieties in nature, have been converted into historic ornament.

Fruits have usually been bunched together in masses, or used in festoons in ornament.

Lessons may be learned from the treatment of plants in Japanese art, such as directness of drawing, flexibility and gracefulness of the natural curves, and their simplicity in rendering foliage and floral forms, and from the Persians in their delightful conventional echoes of plant form, as expressed in their tile and pottery decoration.

The leaves, flowers, and fruit of the commonest plants will serve as the best material for use in the first exercises of rudimentary design. Many varieties also of moths, butterflies, and other insects, as well as some simple forms of animals, fishes, and birds, will provide useful material when the student has had some experience with the simpler flower and leaf forms.

I think it would be a wise thing if exercises in rudimentary design could take the place of the usual practices in freehand drawing in most of our primary and secondary

schools, for it is evident that the young student might advance quite as rapidly in the art of drawing, by executing his own designs, provided he is not allowed to use tracing paper or to adopt any other mechanical means to obtain the "turn over," or repeats of his pattern, as he would by going through the usual dreary experience of copying the classical acanthus foliage, and spiral scroll-work. The Roman and Italian acanthus foliage has had long innings as the stock examination copies, and it is quite certain that both teachers and students would welcome, occasionally, an examination copy derived from some other natural or historical source.

The study of classical ornament should have attention concurrently with the drawing of, and designing from, examples of plants and natural forms, not to be copied so much as a means of learning to draw, but for the purpose of enabling the student to learn the principles and construction on which the composition of good ornament is based. Too much copying of the acanthus foliage in art is dry food for the young student, and is apt to create in him a distaste for his work and to dull his imaginative powers. Generally speaking, the study of historic ornament might safely be left until the student has learned to draw from objects and natural forms, and has had a fair amount of practice in rudimentary design, for at this period in his education his mind and judgment will be more ready to receive and profit by the lessons which may be derived from a study of such work.

Although the early study and practice of elementary design is recommended, it should be understood that drawing from models and real objects should not be neglected ; on the contrary, lessons in model drawing should alternate with exercises in rudimentary design, in order that the pupil should improve his hand and eye in the matters of proportion and in the application of the laws of perspective, when representing solid objects. Ten minutes or a quarter of an hour's practice, once in a fortnight, in drawing from memory some object shown to the student a few minutes before he begins his task, would be an interesting change in the student's work, and a valuable exercise for the mind.

As a training for the mind, apart from its practical value in the matter of hand and eye training, the practice of design, as a school subject, is analogous to that of literary composition, and is of the utmost value to the average pupil in stimulating and developing his inventive powers. Children are often asked, at school, to write essays on given subjects, the object being that they may learn how to put their own ideas and thoughts on paper ; and further, these compositions are, at the same time, exercises in the grammatical construction of sentences. The intellectual and reasoning faculties are here brought into action, affording a welcome relief from the pupil's more abstract and mechanical lessons in other subjects. Originality of ideas, the quality of the subject-matter, and the grammatical or logical composition of the words and sentences, are looked

for in any literary effort of merit. It is obvious that a training in the art of literary composition is of more value than many other endless lessons in the mechanical acquisition of knowledge of school subjects towards the development of the pupil's intelligence; and just in the same way, with the hand and eye training added, will a systematic course of lessons in rudimentary design help to brighten and develop the mind of the pupil in a far greater degree than the continuous and mechanical copying of drawing examples.

In beginning the study of rudimentary design, forms of the commoner plants should be used as material in preference to abstract forms derived merely from straight and curved lines. Design in purely abstract, geometrical, or conventional forms will be better left until the pupil has had one or two years' practice in the arrangement of natural elements as compositions in design. In view of this, I propose that we should take the ivy plant for our first lesson in design, which, with its leaves and berries, though common enough, is one of the most beautiful plants we have around us. It will also form an object-lesson in the illustration for some of the most elementary but important principles of ornament.

From the first lesson, the master should explain to his class of young students the elementary principles of ornament, which might also be termed the grammar of decorative composition, without conforming to which, a design, however effective, can hardly be considered good ornament.



We may admit that a great poet may make his own grammar, and a great artist may occasionally defy principles and artistic laws, but beginners in any art will make more progress when guided by sound principles and definite laws.

## CHAPTER II

### ON THE DRAWING AND DESIGNING OF BORDER ORNAMENT AND BI-LATERAL ARRANGEMENTS

To create an interest in the mind of the young pupil for his work, whether in drawing or design, it is important to introduce to his notice some natural form or object, or a fair representation of the same, so that he may recognise it as the form of something he may have seen in nature. He should be instructed how to design some rudimentary arrangement based on this natural form, and to keep his work, at first, as simple as possible, but the recurring units of his design should be drawn as carefully and correctly as his powers will admit.

If possible, a sprig of the natural plant should be obtained, and a bold drawing from the plant should be made on the blackboard by the teacher in cases where large classes of pupils have to be taught. It would be better, however, to get the pupils to make their own drawings from nature when possible. This is not always practicable, nor is it convenient always to obtain natural specimens, but, as before

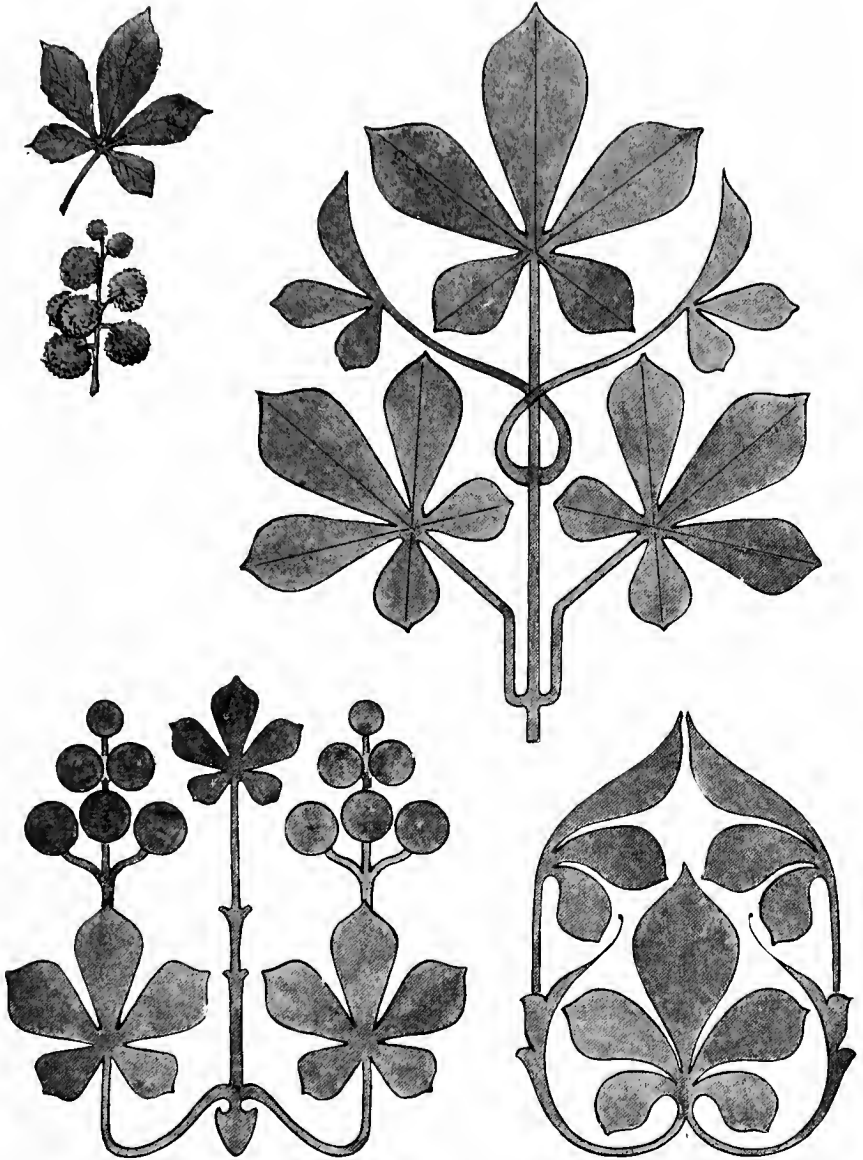
mentioned, the drawings on the blackboard may be made from good representations of the leaves, flowers, and fruit of some plant, and the pupils should be asked to copy them on the top left-hand side of their sheet of drawing-paper in pencil, and afterwards put a wash of any simple flat colour on the drawing. The drawing of the plant selected to make the design from ought to be truthful in the general outline, without much perspective or foreshortening. A few renderings of different shapes of leaves, buds, flowers, or fruit, common to the plant, will be useful as presenting a variety of material, but no botanical sections or separated organs of the plant should be shown. Plant sections and shapes of the various organs in plant life are necessary for scientific illustration and study, but not from an artistic point of view, for in science we require the whole truth, but in art we only want selected truths.

Reference to Plate I. shows how the leaves and berries of the ivy plant are used as units of the border designs and bi-lateral or symmetrical arrangements. A diagram of the plant is shown on the plate. The typical ivy leaf is enclosed in a pentagon whose lowest side is shorter than the others. A series of similar pentagons should be lightly drawn in pencil, each about three inches in height, to form a border as shown at A. No measuring should be attempted. A leaf should then be drawn inside each of the pentagons, and the leaf stalks joined to the horizontal bottom line. After the whole work is clearly and firmly outlined with the lead-pencil, or with a brush and colour, it should be filled

in with any agreeable water-colour wash. This design (A) should occupy the upper half of a quarter-imperial sheet of paper. Accurate and careful drawing is of the greatest importance, and should be attended to in all the exercises in design, for the system of teaching here set forth embraces, what is to be hoped, a rational gradation of lessons in freehand drawing, using either the pencil or brush, as well as progressive studies in decorative design.

After the above exercise is finished, or at a subsequent lesson, the master should instruct the pupil to copy his design in direct brush-work, on the same sheet of paper, parallel to, and underneath the original exercise. A small saucer filled with any agreeable colour, or coloured ink, should be provided—one, say, for every two students. Sable brushes of a medium size are best for use, and will be found cheaper in the end than camel-hair brushes. When the brush is well charged with colour, the horizontal line should be drawn first, then each leaf should be copied, beginning at the apex, and drawing down rapidly a vertical stroke through the intended centre of the leaf to meet the horizontal line and to form the leaf-stalk; the contour of the leaf should be drawn quickly and as accurately as possible; then finally the whole leaf should be filled in with colour. Fig. B, on Plate I. illustrates the brush-work effect, though here the design is slightly varied, the result being a "silhouette" where the treatment of "mass" is the primary consideration. The latter exercise makes a pleasant variation in the pupil's task, and is an extremely useful and important factor in the

PLATE IV.

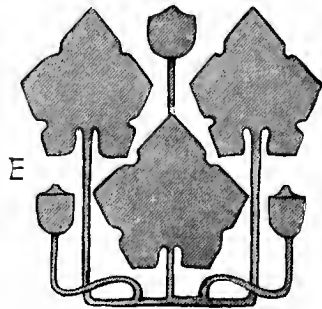
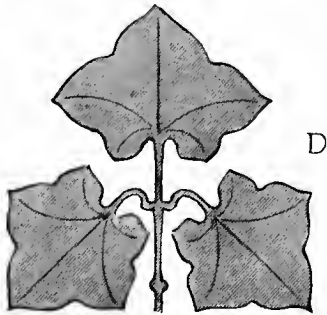
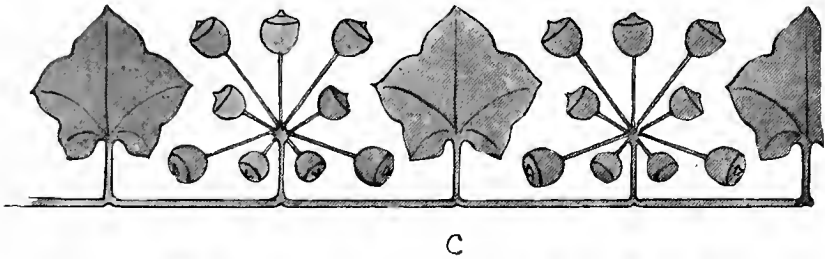
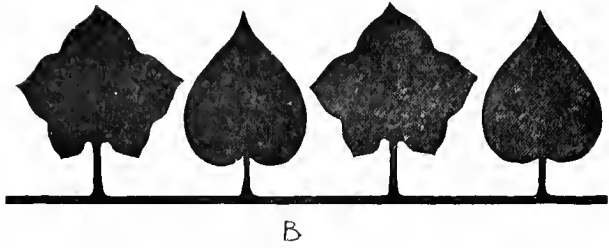
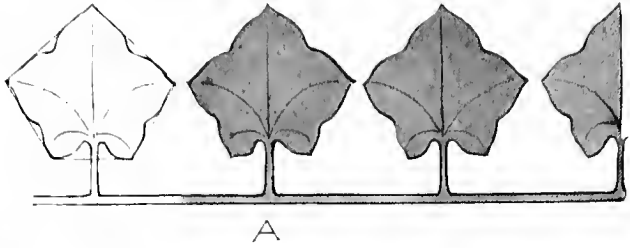


BI-LATERAL OR SYMMETRICAL ARRANGEMENTS FROM THE HORSE CHESTNUT.

[To face page 14.]



PLATE I.



BORDER DESIGNS AND BI-LATERAL ARRANGEMENTS FROM THE IVY PLANT.

[To face page 10.





education of his hand and eye in the matter of direct representation ; for in the execution of this kind of work he cannot rub out any portion he once puts in, and knowing this he is forced to work with great care.

The attempts of beginners in these first exercises will, of course, be very moderate, rough, unequal, and in some cases amusing, but practice will very soon effect an improvement if the system is only given a fair trial.

I should point out that the "brush-drawing" here recommended is not to be confounded with the Kindergarten "blobbing," which, though a species of brush-work, and a very entertaining occupation for young children, is more of an amusement than a serious aid to art education. We see, at times, in the exhibitions of primary school work, some wonderful examples of patience and monotony, illustrating the fashionable "blobbing" species of brush-work, which are very clever and smart in execution, very neat, but very mechanical.

The objection to "blobbing" is that it is usually carried too far in some schools, that it leads to the suppression of individuality in the pupil's work, and the results from an educational point of view hardly justify the spending of the time which is usually bestowed upon it. Brush-work "silhouetting" from nature, and the translation of ornament, as practice in brush-drawing, will be considered and illustrated later on. (See Chapter IV.)

Fig. A, on Plate I., is an illustration of "repetition" in ornament, and Fig. B is an example of "alternation." L

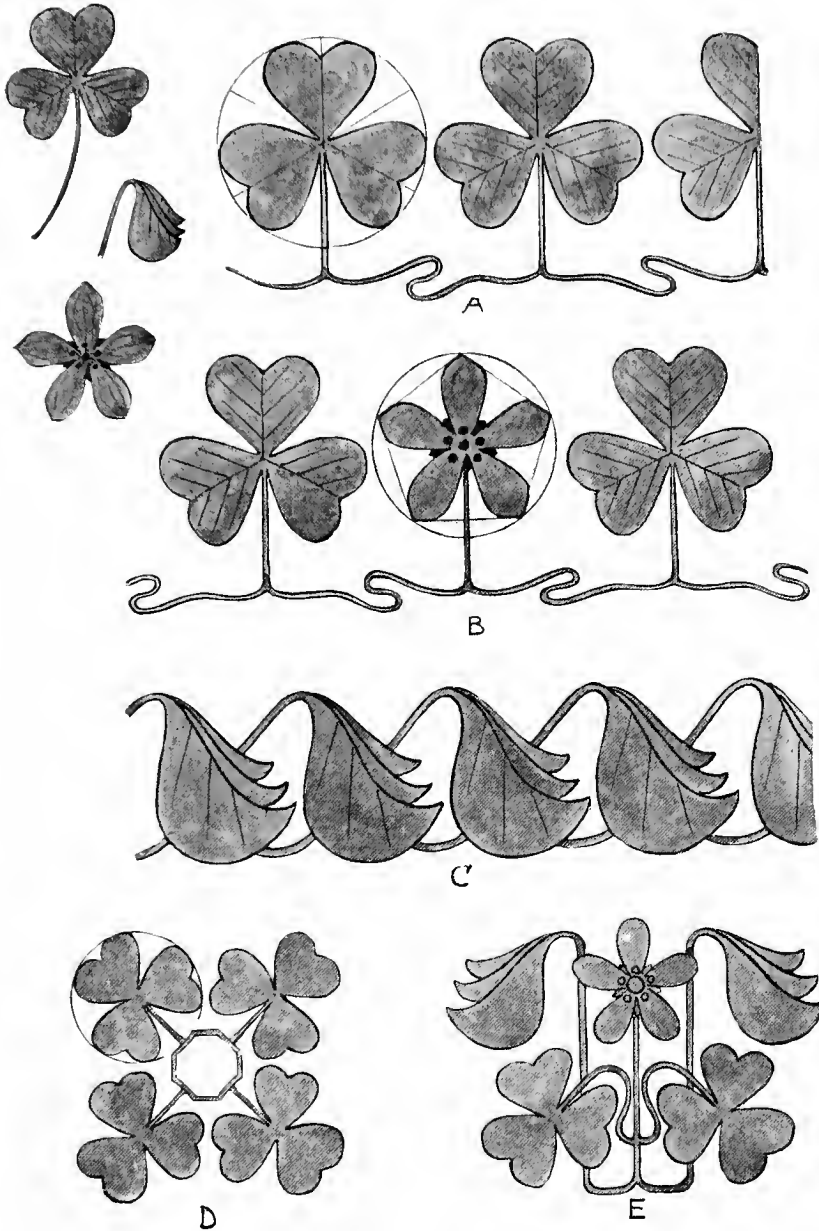
The inverted heart-shaped ivy leaf alternates with the ordinary five-pointed variety. Fig. C shows "alternation" with the leaf and berries of the ivy, and illustrates "contrast." The arrangement of the berries illustrates the principle of "radiation" in the growth of the berry-stalks, the berries expanding in an "umbel" shape.

It will be noted that "radiation" is also illustrated by the disposition of the principal veins in the ivy leaf, this construction being similar in all leaves of the vine family, of which the ivy is a member.

The next lesson, on the designing of the continuous border, is illustrated on Plate II., the elements of which are derived from the wood-sorrel. After the diagram of the plant is drawn, the student should be allowed to make a circle with compasses, to contain the first trefoil leaf of the border design. This circle should be divided equally by six radial lines, and the first leaf should be drawn in as at Fig. A. The repeating leaves should be drawn of the same size, without measuring, and the connecting base-line afterwards. When the border design is outlined in carefully, and the masses of the leaves are coloured, assuming that the student has done this on the top half of his sheet of paper, a brush-work silhouette copy ought to be made on the lower half of the paper, as explained in the former case of the ivy-leaf border.

The second border, B, on Plate II., has the flower of the wood-sorrel alternating with the leaf. When converting the flower to ornamental purposes, a conventional rendering

PLATE II.



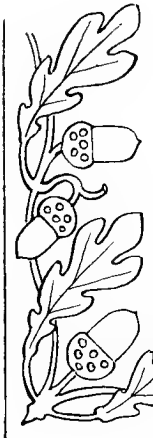
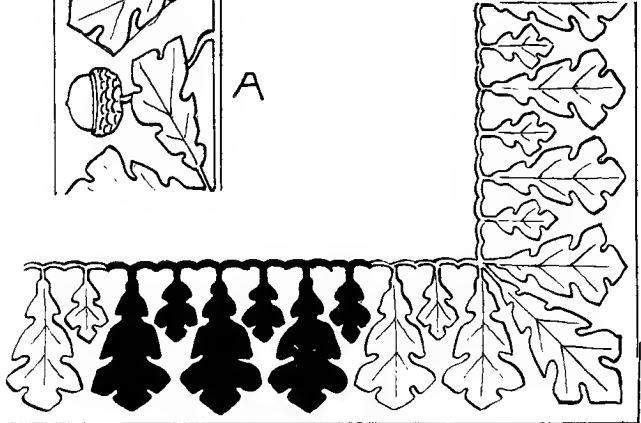
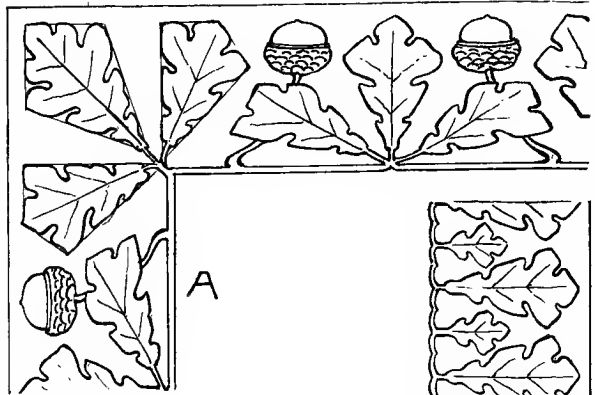
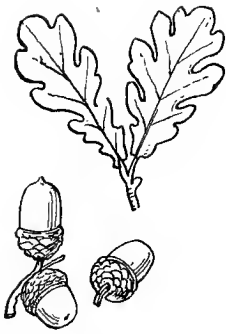
BORDER DESIGNS AND BI-LATERAL ARRANGEMENTS FROM THE WOOD-SORREL PLANT.

[To face page 12.

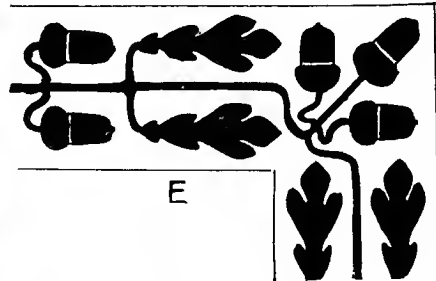
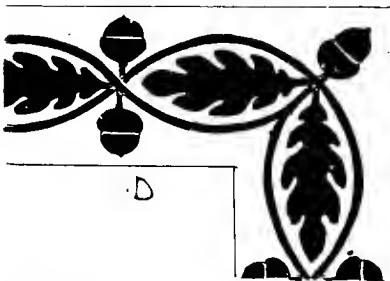




PLATE III.



C



BORDER DESIGNS FROM THE OAK LEAF AND ACORN, SHOWING VARIOUS TREATMENTS OF THE CORNER.

[To face page 13.]

should be given, using the circle and the inscribed regular pentagon as the geometrical elements on which the flower is constructed, but in the repetitions of the flower or leaf these mechanical helps should not be resorted to, for the object of learning to draw in a freehand manner should always be kept in view. Fig. C, on this plate, has for the motive of the design the folded side view of the trefoil leaf—the ordinary appearance of the leaf when it is “sleeping” in the evening and during the night. This design might be termed a “chasing” or running border.

Plate III. shows five different ways of designing the corner in border ornament, the motives being the leaves and acorns of the oak. To design a satisfactory corner to a border is not an easy task. It is surprising to find how very few ways there are in which a running border ornament can be “mitred” so as to look well. The difficulty is often got over by treating the corner space as a square, but if there is no “echo” of some part of the border ornament in the square, the problem is not solved. It will be noted that the conventional rendering of the oak leaves and acorns on this plate, although very much simplified from the natural specimens, still retain the spirit and character of nature. It is possible, of course, to produce good ornament, as the Greeks, Romans, and Saracens have done, in which the natural forms have become so abstract, or so far “corrupted,” as to have lost their quality as derivatives from nature, but we should remember, if we are to produce any measure, however small, of originality in our designs,

or if we are to interest ourselves and others in our work, we shall succeed better, if we try to keep a reminiscence of nature in our productions.

The shapes of the leaves and acorns on Plate III. are modified in proportion, height, and width according to the requirements of their positions.

Figs. A and B, on this plate, may be termed "radiating borders," and C, D, and E "running" patterns of borders. The border at A shows a severe rendering of the leaf, and has the enclosing line around the edges, the first step to mark the position and shape; and the "squat" shape of the acorns brings them into harmony with the border lines and spreading character of the leaves.

Students are advised to try other plants, as well as the ones given, for their exercises in border designing, and after some practice in the latter they should try to compose bi-lateral or symmetrical arrangements. These should be designed very simply, without any reference to enclosing or boundary lines.

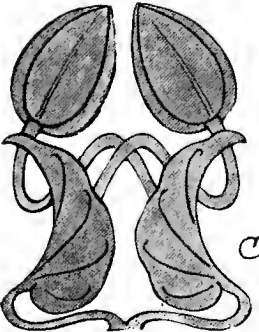
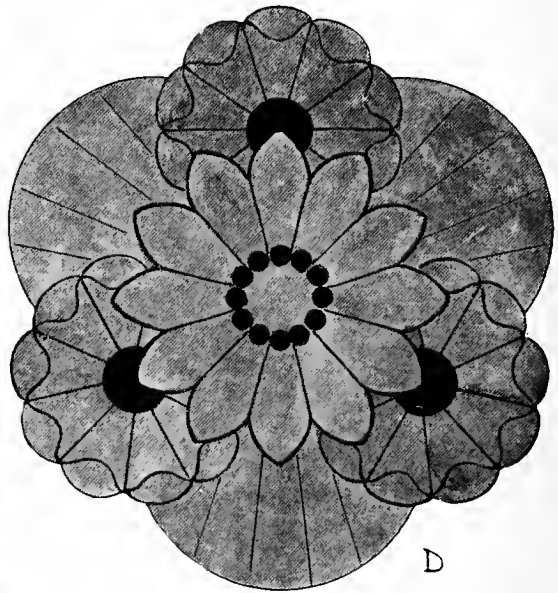
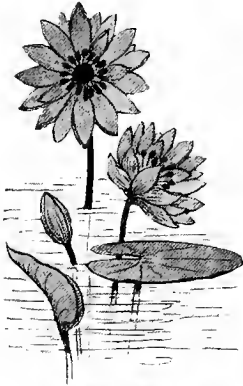
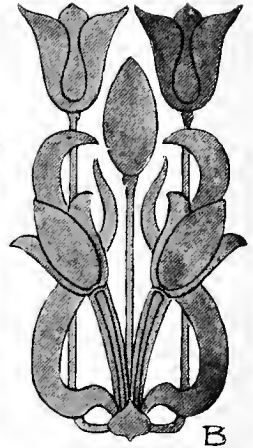
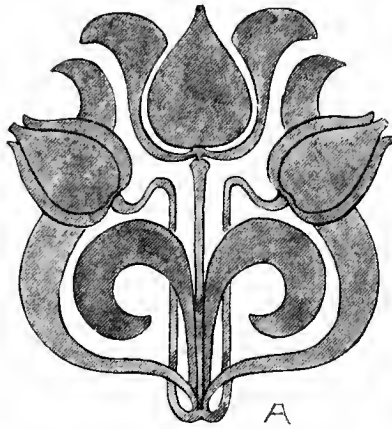
This kind of exercise is very useful as practice in getting the balance of "mass" and "line," and is excellent for freehand practice when executed on a fairly large scale, which should not be less than a quarter-imperial size for each design. When the design is drawn and coloured flatly, a copy of it should be made in direct brush-work, about one-third the size of the original.

Examples of these designs are given at D and E, on Plate I.; the latter example, from the ivy plant, is simpli-





PLATE V.



A, B, AND C, BI-LATERAL ARRANGEMENTS FROM THE TULIP AND WATER LILY ;  
D, RADIAL DESIGN FROM WATER LILY.

fied to an extreme degree, but still remains vested with a reminiscence of nature. "Symmetry," or like-sidedness, "balance," and "contrast" are obviously the principles exemplified in this design. Figs. D and E, on Plate II., derived from the wood-sorrel, though square in contour, are not designed to fill a square. Three varieties of symmetrical combinations are shown on Plate IV., and are derived from the horse-chestnut.

The tulip is used as a motive in the designs at A and B, Plate V., and the design C shows an arrangement of the folded leaves and buds of the water-lily in elevation, while the figure at D is a combination of the flowers and leaves of the same plant shown in plan; this is a very geometrical but legitimate rendering of the water-lily plant in ornament. This design is very suitable for a treatment in three colours, but is not so good as a brush-work exercise.

Bi-lateral combinations are far less difficult to design than the filling of given spaces in ornament, or designing for a special purpose, as in applied designs. The student has only to be careful to obtain some pleasing lines of arrangement and forms, the doubling over of which, in most cases, is nearly sure to give pleasing results. Even an ugly-shaped blot, or lop-sided form, will often, when doubled over, make a satisfactory bit of ornament.

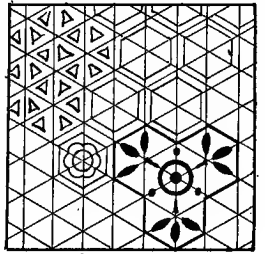
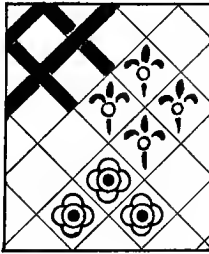
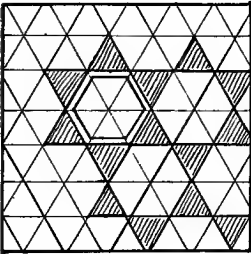
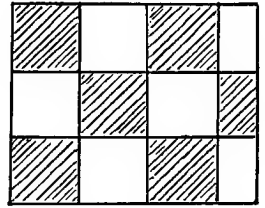
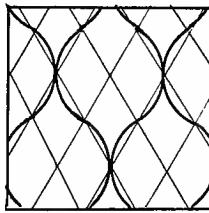
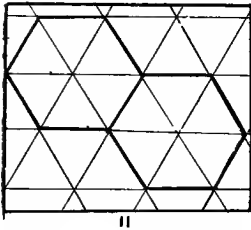
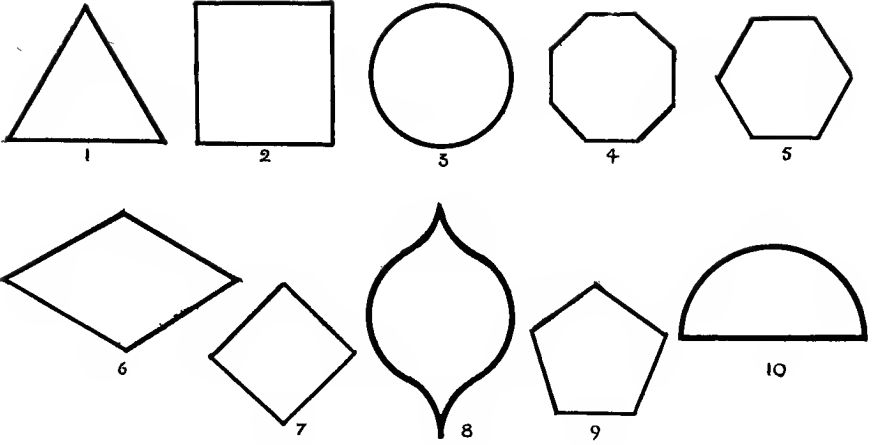
## CHAPTER III

### ON THE DESIGNING OF ORNAMENT TO FILL GIVEN SPACES

SOME geometrical figures are represented on Plate VI., numbered 1 to 10, the filling of which with ornamental arrangements will now be considered. Apart from the designing of a pleasing combination of decorative forms, the student has to consider the enclosing lines of the figure which is to contain the ornament. He should also bear in mind that the principal masses should be so arranged that they may "echo" the general shape of the figure selected for decoration. Before deciding the actual scheme of the work, it will be found advisable to make a few trials or small sketches, arranging roughly the positions of the principal masses by blots that may bear some relation to the plant selected for the design, and afterwards connecting these by the principal lines of the proposed composition.

This putting in of "mass" before "line" is the better way to proceed when building up a design, and enables the student to formulate, in a short space of time, something like the general effect of his proposed task ; this is shown in the

PLATE VI.



11

12

13

14

15

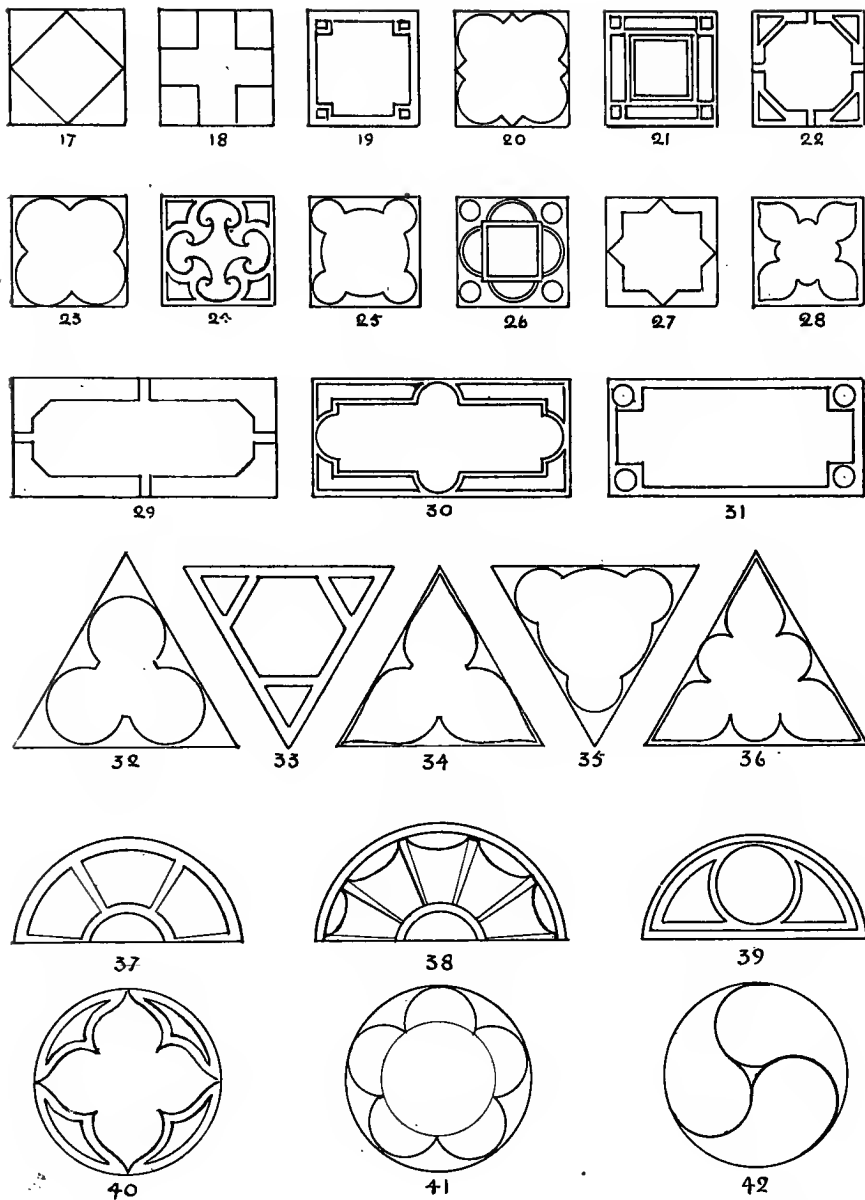
16

GEOMETRICAL FIGURES, 1 TO 10; GEOMETRIC CONSTRUCTION LINES ON WHICH PATTERNS ARE BASED, 11 TO 16.

[To face page 16.]



PLATE VII.



FILLINGS OF SQUARES BY GEOMETRICAL SUBDIVISIONS, 17 TO 28; OBLONGS, 29 TO 31; TRIANGLES, 32 TO 36; LUNETTES, 37 TO 39; CIRCLES, 40 TO 42.

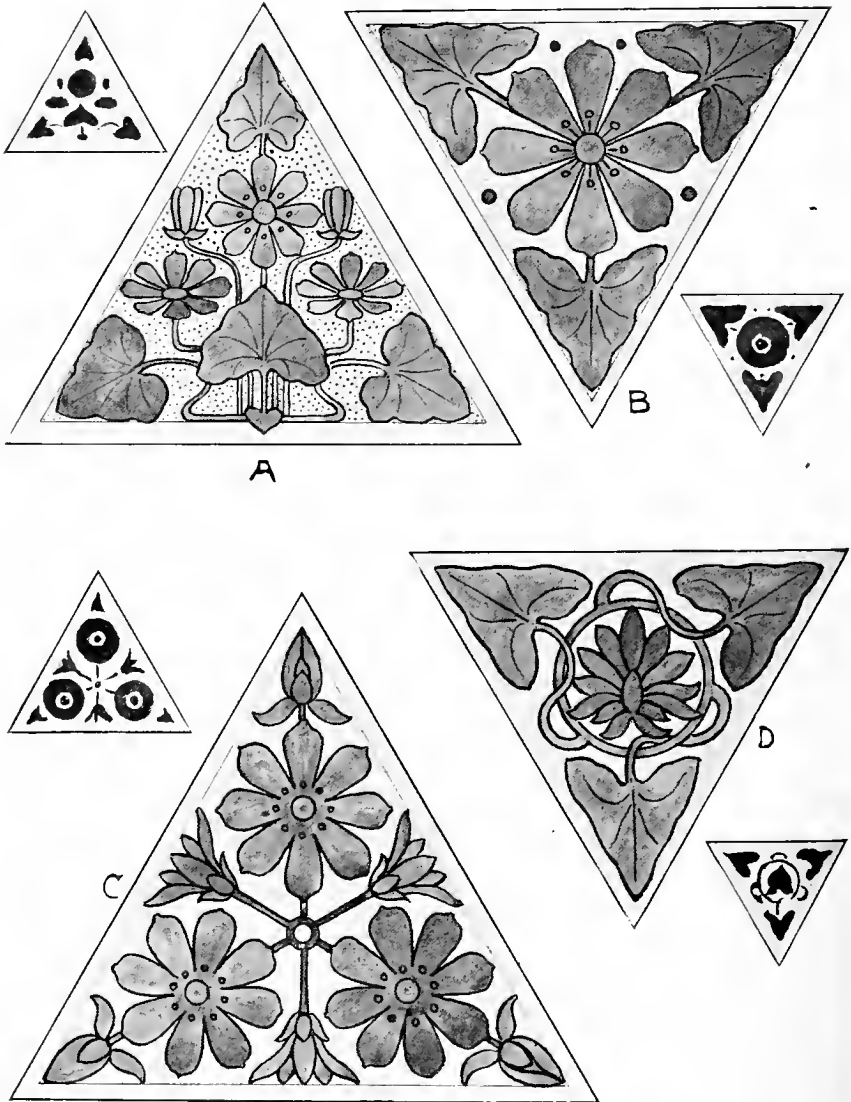
[To follow Plate VI.







PLATE VIII.



DESIGNS FOR THE FILLING OF A TRIANGLE FROM THE LESSER CELANDINE; THE SMALL DIAGRAMS INDICATE THE METHOD OF THE FIRST ARRANGEMENT OF THE PRINCIPAL MASSES.

small sketches on Plates VIII. and XIV. An important matter to be attended to in designing a filling for a space is that a guiding line should be drawn parallel, or concentric, as the case may be, to the sides of the proposed figure that is to contain the ornament, to which the latter must extend and touch at regulated intervals, so that it may appear to "carry a line" around itself. The plain space thus left between the ornament and enclosing line of the shape selected is valuable, and acts as a kind of border. This line should not be left in the *finished work*. (See the triangular fillings on Plate VIII.)

The designs filling the triangles on Plate VIII. are derived from the Lesser Celandine plant, and show three ways of filling the figure. The design at A shows upward growth from the centre of the base, B and C are radial in construction, and D is slightly spiral in growth. The small rough trial sketches on this plate should be noted.

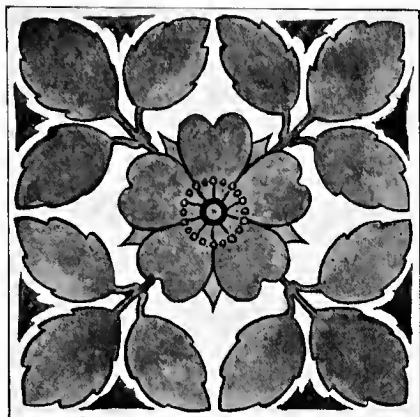
Three fillings of the square are shown on Plate IX. ; the motive of the designs is the Wild rose. When arranging the units of a design, the student should endeavour, if possible, to get some extra decorative value by making the ground between the ornament an interesting feature in itself. Some pleasing shapes in the ground spaces may occasionally be obtained, but not always, as many arrangements of good ornament do not readily lend themselves to the production of ornamental ground spaces ; but this effect should be aimed for where possible, as it is always a great gain, and another source of interest. Attempts in this direction may be

noticed at A and B, on Plate IX., the dark central work at Fig. C, on Plate X., and in the pentagon, B, on Plate XI. It may be seen that the square fillings at A and B, Plate IX., are radial in construction, an easy method of filling a square, and perhaps the most satisfactory. The upright filling at C is more difficult, for this kind of growth in the design is more suitable for the upright oblong shape. The square character is here kept by having important similar features at the corners to emphasise the shape; for instance, if leaves were used instead of the flower forms at the lower corners, the result would not be so good, as this would, when combined with the central leaves, make a more triangular shape, and unsatisfactory as part of a square filling.

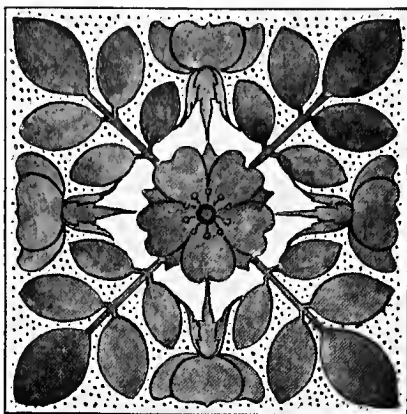
The filling of the circle is, like the square, more satisfactory if the ornament radiates from the centre, as at C, on Plate X. There is not, however, the slightest objection in the ornament springing from the bottom, as at Fig. A, where the cyclamen is used as ornament, or in the "chasing" growth of the pink at B.

The cyclamen design is an illustration of "stability" in ornament, and the circle filling from the pink serves to show "balance without symmetry" in the disposition of the flowers. The larger circle at C is occupied with a design based on the nasturtium. This design may serve to illustrate the law of "even distribution" of the elements used, and of "contrast" in the treatment of the latter, and also of the ground spaces. It will be noticed that the

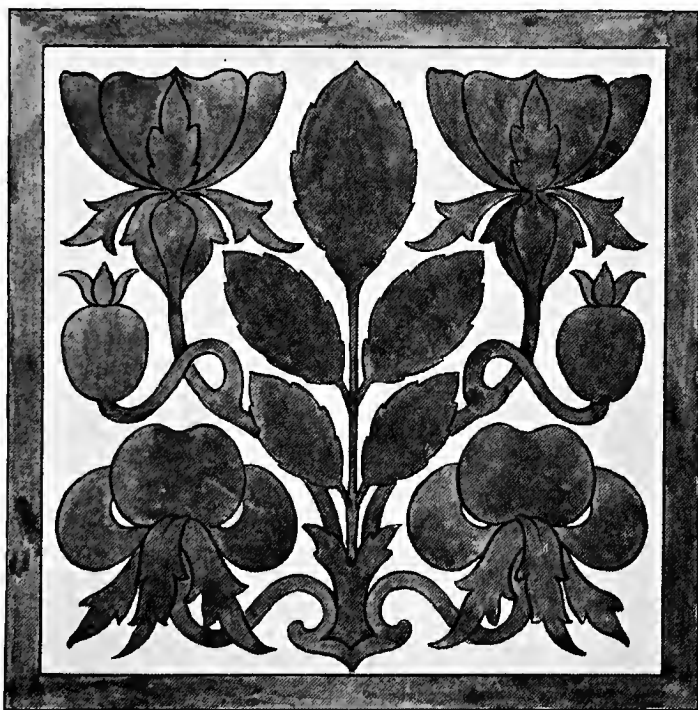
PLATE IX.



A



B



C

FILLINGS OF THE SQUARE. A AND B, RADIAL ORNAMENT; C, UPRIGHT GROWTH.

[To face page 18.



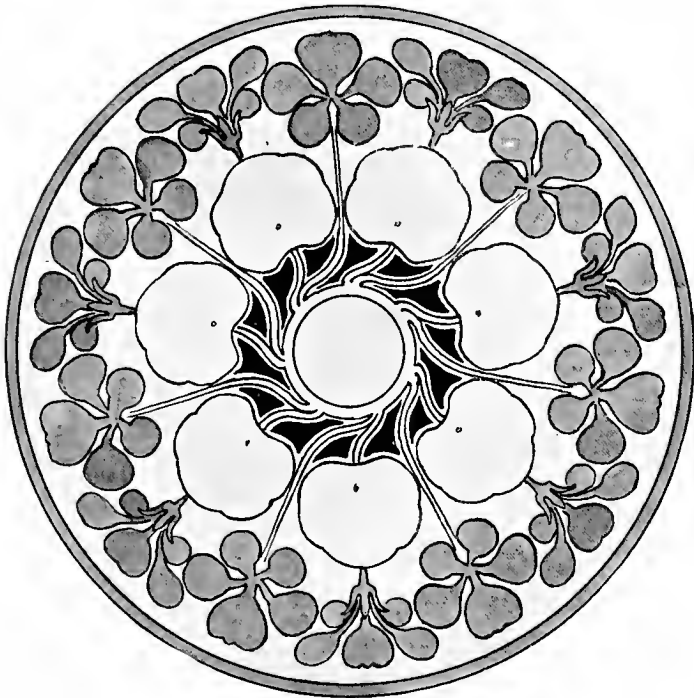
PLATE X.



A



B



C

THREE METHODS OF CIRCLE FILLING. A, SYMMETRICAL TREATMENT OF THE CYCLAMEN ;  
B, SPIRAL ARRANGEMENT OF THE PINK ; C, RADIAL TREATMENT OF NASTURTIUM.

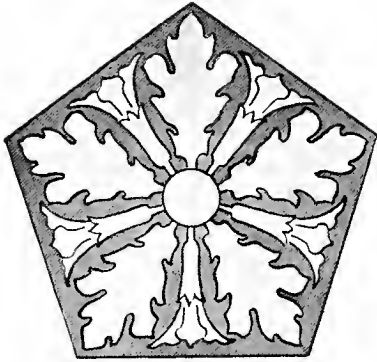
[To follow Plate I.X.]



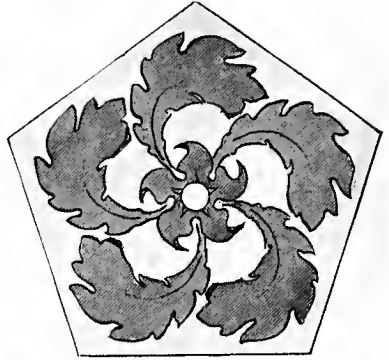




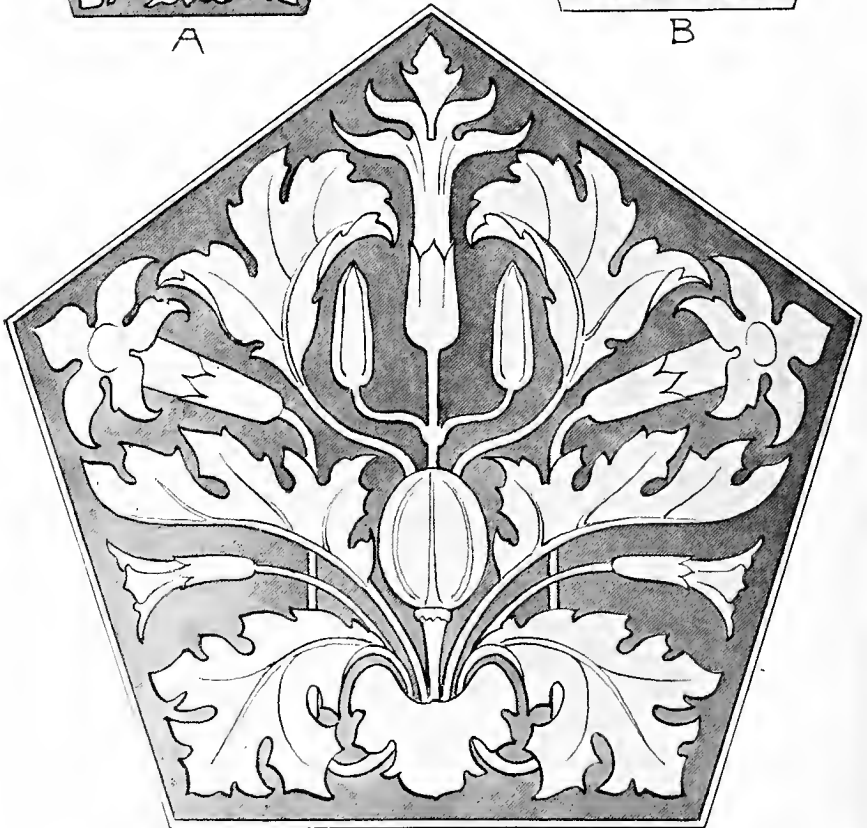
PLATE XI.



A



B



C

THREE METHODS OF FILLING A PENTAGON, FROM THE DATURA PLANT. A, RADIAL;  
B, SPIRAL; AND C, VERTICAL GROWTH.

slight expression of "movement" in the lower portion of the stems of both leaves and flowers is here counteracted by the radial position of the flower and leaf masses, which gives "rest," as opposed to movement; and where the qualities of movement and rest are equally balanced in a design, the contrasting result is desirable, and devoid of monotony.

Three ways of filling the pentagon are shown on Plate XI., the designs being based on the *Datura* plant. The leaf and flower in elevation are arranged radially at Fig. A, while the plant of the flower and a spiral treatment of the leaves is seen at B. In the larger pentagon at C, leaves, flowers, buds, and fruit are all used, and some advantage is taken in the construction of the design from its natural growth. This plant is admirably suited for decorative purposes, from the ornamental variety of its different parts, and might be used with advantage much more than it is in modern decoration.

On Plate XII. is presented a variety of treatment in the filling of the oblong space. An upright character of ornamental filling is shown at A, where the Cowslip is the motive of the design. While the arrangement emphasises the upright oblong shape, the natural habit of the growth is adhered to. The vine panel at B is an example of "balance without symmetry," and is a more difficult method of filling a space than that of a purely symmetrical arrangement. Balance must be kept in any composition of this kind. Although we strive for the effect of "even dis-

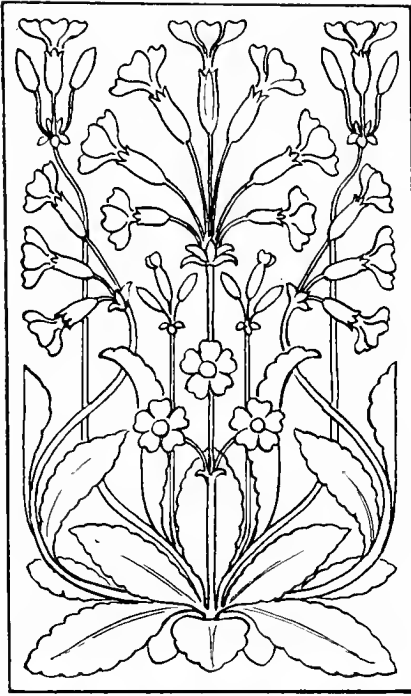
tribution," we must avoid any appearance of repetition in the size and placing of the units and masses; the latter should vary in size and gradation, but not violently so, and the whole composition should look easy and natural in growth.

The young student should practise the using of birds, insects, or other animal forms in his designs as soon as he is able to draw them. If not practicable, or if the task be too difficult to draw from nature, drawings should be made from still life or museum specimens, or even from good drawings of natural history examples. Cases of moths, butterflies, and stuffed birds ought to be part of the equipment of all schools, and if the specimens are well mounted and correctly described, they would be of more educational value than the badly drawn and worse coloured lithographs that usually find a place on the walls of our public schools.

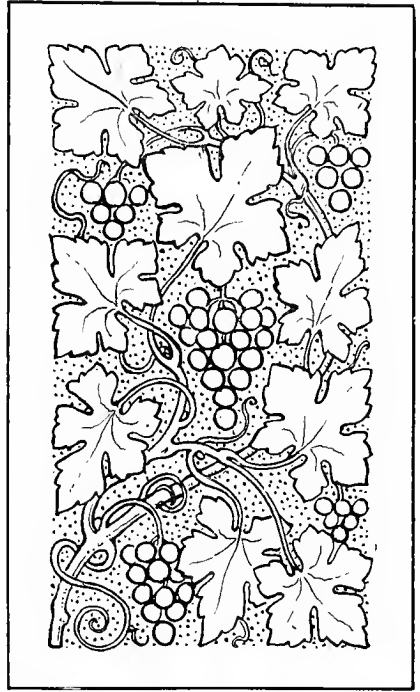
Some suggestions of insect, bird, and animal life forms are given on Plates XIX. and XX., that might be useful to the elementary student in design, but it is strongly recommended that when possible the student should make studies from life or from good examples of preserved specimens.

The ravens introduced amongst the foliage of the beech at Fig. C, on Plate XII., are so disposed as to emphasise the horizontal dimensions of the oblong, and their dominant forms are contrasting elements to the foliage, which would be otherwise monotonous in effect, if the whole space was occupied by the similar-sized leaves only. This illustrates

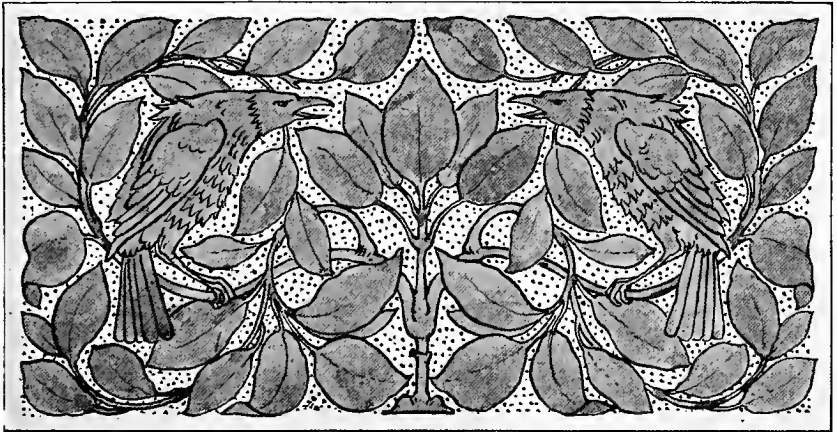
PLATE XII.



A



B



C

OBLONG FILLINGS. A, VERTICAL DESIGN FROM THE COWSLIP; B, UNSYMMETRICAL VINE TREATMENT; C, HORIZONTAL TREATMENT OF BIRD AND BEECH TREE FORMS.

[To face page 20.







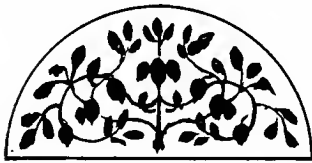
FILLINGS OF THE OGEE AND SQUARE LOZENGE SHAPES. A AND B SHOW THE SAME DESIGN ON A DARK AND LIGHT GROUND; D AND E ARE SIMILAR TREATMENTS. THE OGEE SHAPE AT C HAS A TREATMENT OF THE WILD HYACINTH.



PLATE XIV.



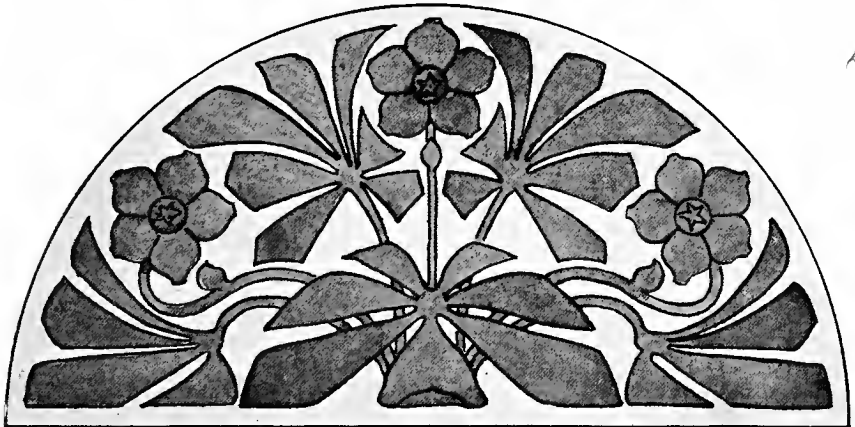
A



B



C

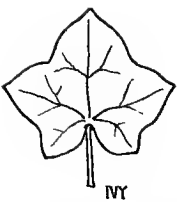


D

FILLINGS OF THE SEMICIRCLE OR THE LUNETTE. A IS FROM THE LEMON TREE ; D, FROM THE CHRISTMAS ROSE. B AND C ARE DIAGRAMS OF THE FIRST ARRANGEMENT OF PRINCIPAL MASSES.



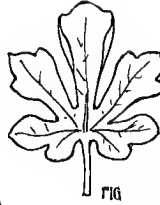
PLATE XV.



IVY



VINE.



FIG



OAK



PRIVET.



PLUM



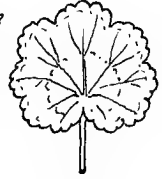
PEAR



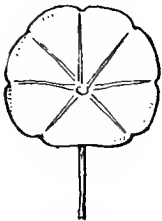
APPLE



HORSE  
CHESTNUT



GERANIUM



NASTURTIUM



POPPY



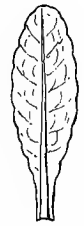
PANSY



SANDELWOOD



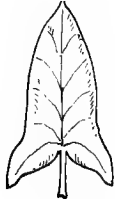
ROSE



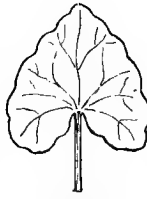
PRIMROSE



CROFOOT.



CONVOLVULUS



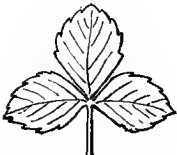
CELANDINE



LILAC.



PEA.



STRAWBERRY.



WOOD  
SORREL



CYCLAMEN.



BITTER-SWEET.



VIOLET.



THALWORT.

TYPES OF VARIOUS LEAF FORMS.

[To follow Plate XIV.





PLATE XVI.



APPLE.



PEAR.



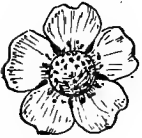
WOOD ANEMONE.



BRUTI.



HAWTHORN.



RANUNCUL.



BUTTERCUP.



CAMPANULA.



CHRISTMAS ROSE.



CLEMATIS.



COLUMBINE.



CONVALLARIA.



CORNFLOWER.



CROCUS.



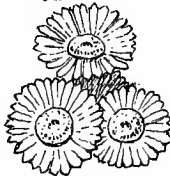
CROWN IMPERIAL.



FUCHSIA.



NIGELLA.



DAISY.



FORGET-ME-NOT.



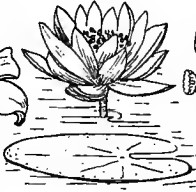
ANEMONE.



IRIS.



LILY.



WATER LILY.



JONQUIL.



HIBISCUS.



PERIWINKLE.



FOXGLOVE.



THISTLE.



COWSLIP.



TULIP.



JASMINE.

VARIOUS FLOWER FORMS AND FLOWER GROWTHS.

(To follow Plate XV.)

PLATE XVII.



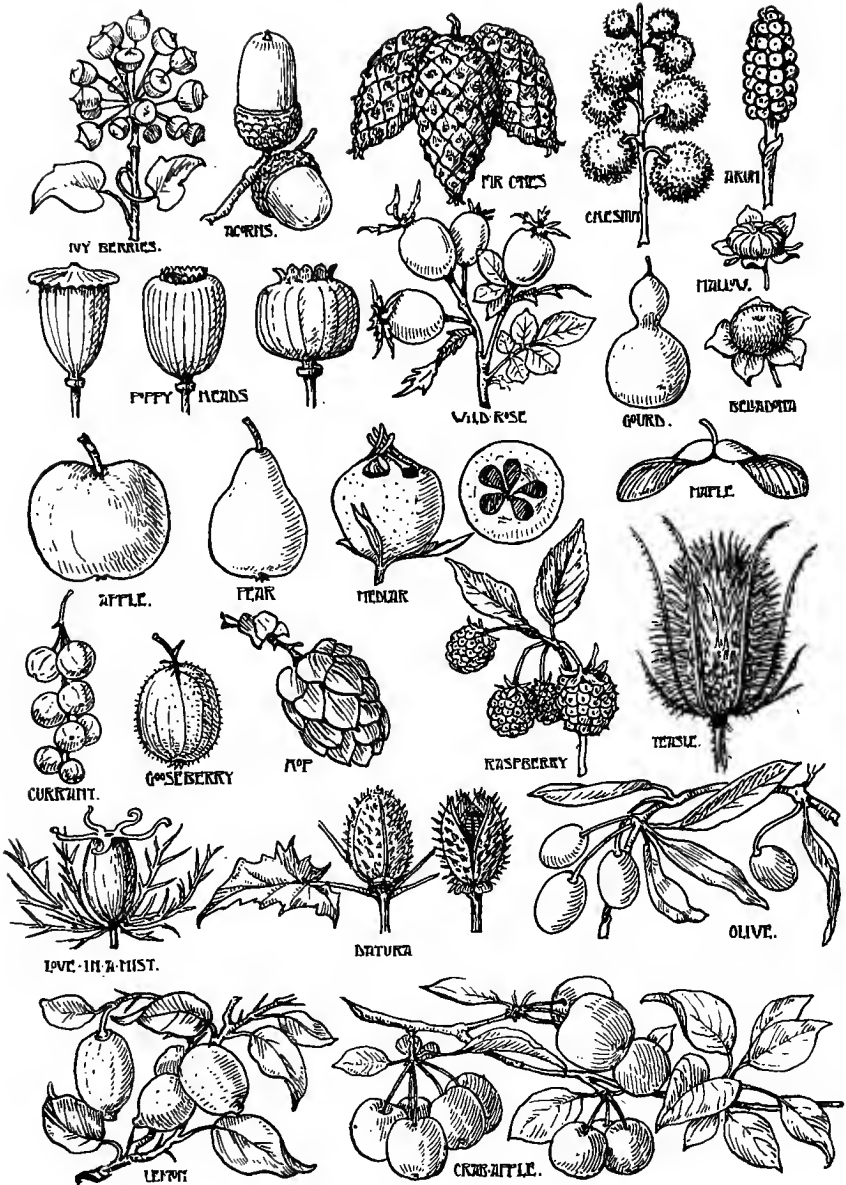
EXAMPLES OF VARIOUS KINDS OF FOLIAGE.

[To follow Plate XVI.]





PLATE XVIII.

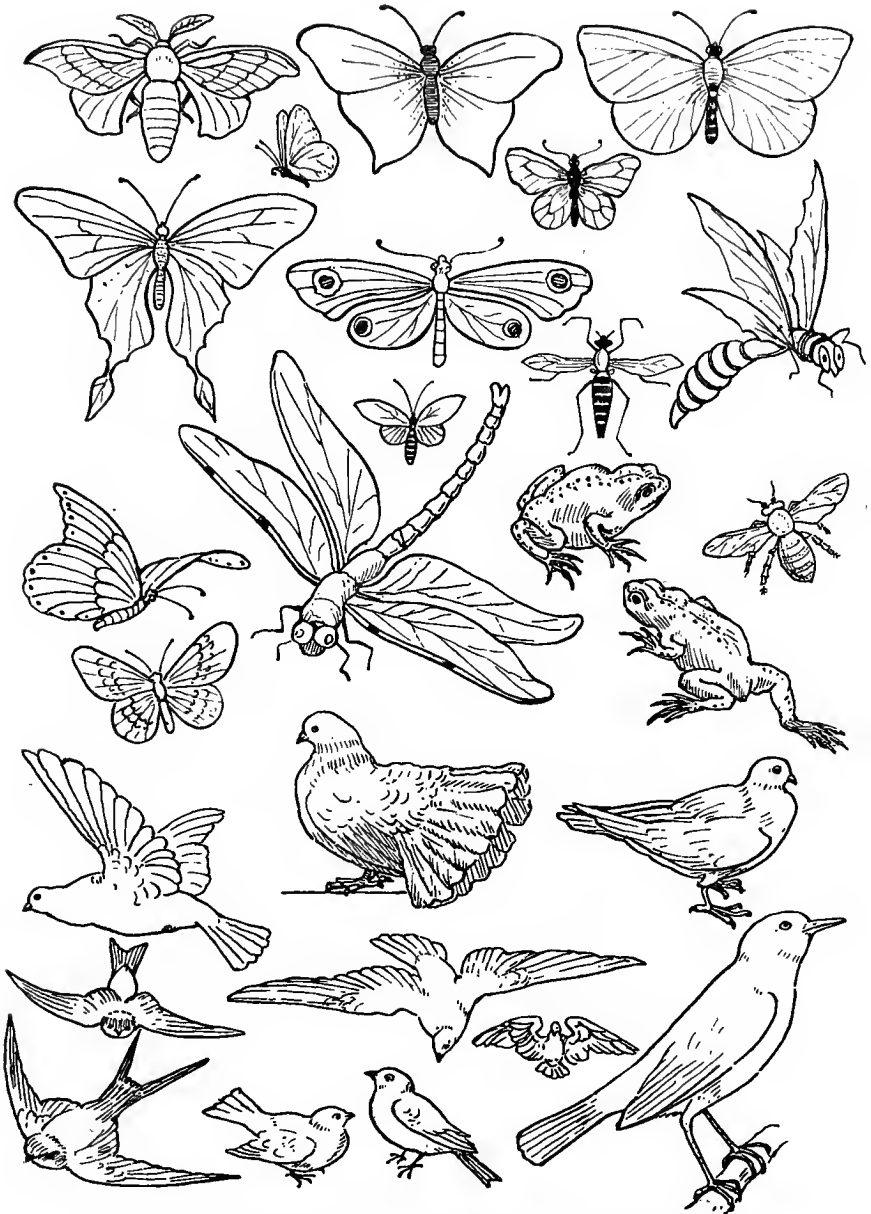


EXAMPLES OF VARIOUS KINDS OF FRUIT.

[To follow Plate XVII.]



PLATE XIX.



INSECT AND BIRD FORMS, &c., AS SUGGESTIONS FOR USE IN DESIGN.

[To follow Plate XVIII.]



a common principle in ornament—namely, that if dominant forms are used in a composition, the rest of the design should be kept in strict subordination by using some very simple forms in a much greater repetition to complete the work.

On Plate XIII. there are some fillings of the "ogee" form, at A, B, and C, the former two being examples of the same design on a light and a dark ground, derived from the Narcissus. The ogee space at C is filled with a design based on the Wild Hyacinth, a plant which lends itself to the decoration of this particular form. The central mass is suggested by the cluster of young buds, which takes a shape like this before opening into flower. The ogee shape is an important and common basis of a great family of diaper designs, particularly of Persian and Italian textiles. This comes of its adaptability of repeating all over a surface without leaving any interspaces. (See the application of this at Fig. D, Plate XXXIX.) The designs at D and E, on Plate XIII., are shown as the same pattern on a light and dark ground, and fill a lozenge shape, or square placed angle-wise. The honeysuckle in elevation, as the motive used, lends itself admirably to the filling of this space, and so illustrates the law of fitness or congruity, a condition which is generally fulfilled when the lines, units, and masses of a design "echo" the main lines of the enclosing shape.

Plate XIV. illustrates some methods of filling the "lunette" or semi-circular form. At B and C are examples

of the previously mentioned small rough sketches of the blotting-in of the idea for the larger finished work. The student should always begin his designs in this way, and after making a few, he should select the best of them for the basis of his intended work.

Although the leaves of the lemon tree and fruit, used as the units of the filling at Fig. A, are nearly of the same size, the necessary contrast and variety are obtained by the different shapes and surface treatment of each. In this example two colours might be used effectively to give variety to the scheme. The design at D is a bold and conventional rendering of the Hellebore, or Christmas rose.

It is to be hoped that sufficient has been said, and enough illustrations given on the Plates numbered from VIII. to XIV., to help the student when designing for the filling of any given shape or form. Such forms as the diamond, or double equilateral triangle, the hexagon, and the octagon have not been treated, but the same rules and principles mentioned in reference to the filling of the square, lozenge, circle, and pentagon, apply equally to the former shapes.

It is strongly recommended that teachers should exercise their students in the use of plants and materials other than those given in the designs we have been considering, and for the suggested use of those who may have a difficulty in obtaining sufficient varieties of natural examples, I have drawn from nature some typical specimens of leaves, foliage, flowers, and fruit, which are named and reproduced



PLATE XX.



BIRD, FISH, AND ANIMAL FORMS AS SUGGESTIONS FOR USE IN DESIGN.

*(To follow Plate XIX. and face page 23)*



as illustrations on Plates XV., XVI., XVII., and XVIII. respectively. Insect, bird, and animal forms will be found on Plates XIX. and XX., while further examples of leaves and flowers, &c., are illustrated as brush-work translations from nature on Plates XXI. and XXII.

## CHAPTER IV

### BRUSH-DRAWING

As a means of acquiring power in draughtsmanship, apart from its technical usefulness to the designer or painter, there is no better practice for the student than the making of studies, in direct brush-work, from plants, animal and bird forms. We know what consummate masters the Japanese are in brush-drawing, and how the greater portion of their decoration, book illustration, and pictorial work is executed direct with a full brush in colour or in ink. Even their ordinary writing is done with the brush, the use of which comes so naturally to them that its characteristics and influence are apparent in all their handicrafts. This brush-work feeling is strongly marked, for example, in their stencil cuttings. (See Plate XXVII.)

The ornament in the decoration of Greek vases and on Indian, Persian, Moresque, and Mexican pottery, though taking floral, leaf, and geometric forms, is found to be mainly composed of brush forms, when analyzed.

The use of the full brush of colour by pottery painters and other decorators gives a richness of quality and a certain look of freedom of execution to their work, which no kind of printing, stencilling, or other mechanical methods of application can hope to rival; and whether the treatment be fine and delicate, or broad and full, there is always a satisfying charm in the work that has been executed in a decorative manner in direct brush-work.

This kind of decoration might be broadly divided into two classes: one where the decoration is composed or built up of brush strokes purely, and the other where it is rendered in direct brush expression as a "silhouette" or shadow-like form.

Both classes of brush-work should be cultivated by the student, but the latter class is by far the most valuable as a training for the draughtsman; for, although a great deal might be said in favour of the first-named class, the practice of it cannot be compared, from an artistic point of view, with that of the second method.

If we examine that great ornamental class of historic pottery decoration, which has been thought by many to owe its origin exclusively to brush strokes or forms, it will be found that, although the general aspect of the decoration would lead one to suppose that the ornamental forms were generated by the shapes of the brush strokes, this is not always the case, for in numerous instances they are only translations from previously existing examples of relief ornamentation or of natural forms, but by endless repetitions of these

models, with the brush, they have acquired the likeness and features of an apparent brush-stroke prototype. The brush-stroke ancestor theory may be plausible, but it is hardly logical, and just now its popularity is so great that it is in danger of being ridden to death.

In a purely decorative direction brush forms and strokes may be used very effectively as a medium of ornamental expression. Such forms are shown at Figs. A and A' on Plate XXI., and at B, F, and C the foliage and leaves are composed of similar direct brush strokes. The birds at D and the ornament at G are also rendered in a similar manner. A strictly heraldic or conventional form, derived from nature, such as the eagle on this plate, readily lends itself to expression in brush strokes, an example of the fitness of conventional expression of a decorative object.

The ornamental design at E, Plate XXI., is an example of a brush-work translation from a cast of Italian ornament; it illustrates a most useful method of study that should be cultivated by all art students. In exercises of this kind the student should work direct with a full brush of colour or ink; no previous drawing in of the work with the pencil or point should be attempted. The light lines or markings are left out to show the construction, which, if filled in, would make the study a complete silhouette, or shadow-drawing, of the original; it is better, however, when painting direct from casts or nature, to leave out the parts which define the shapes, and mark the articulations and divisions, so as to explain the drawing, and this leads to

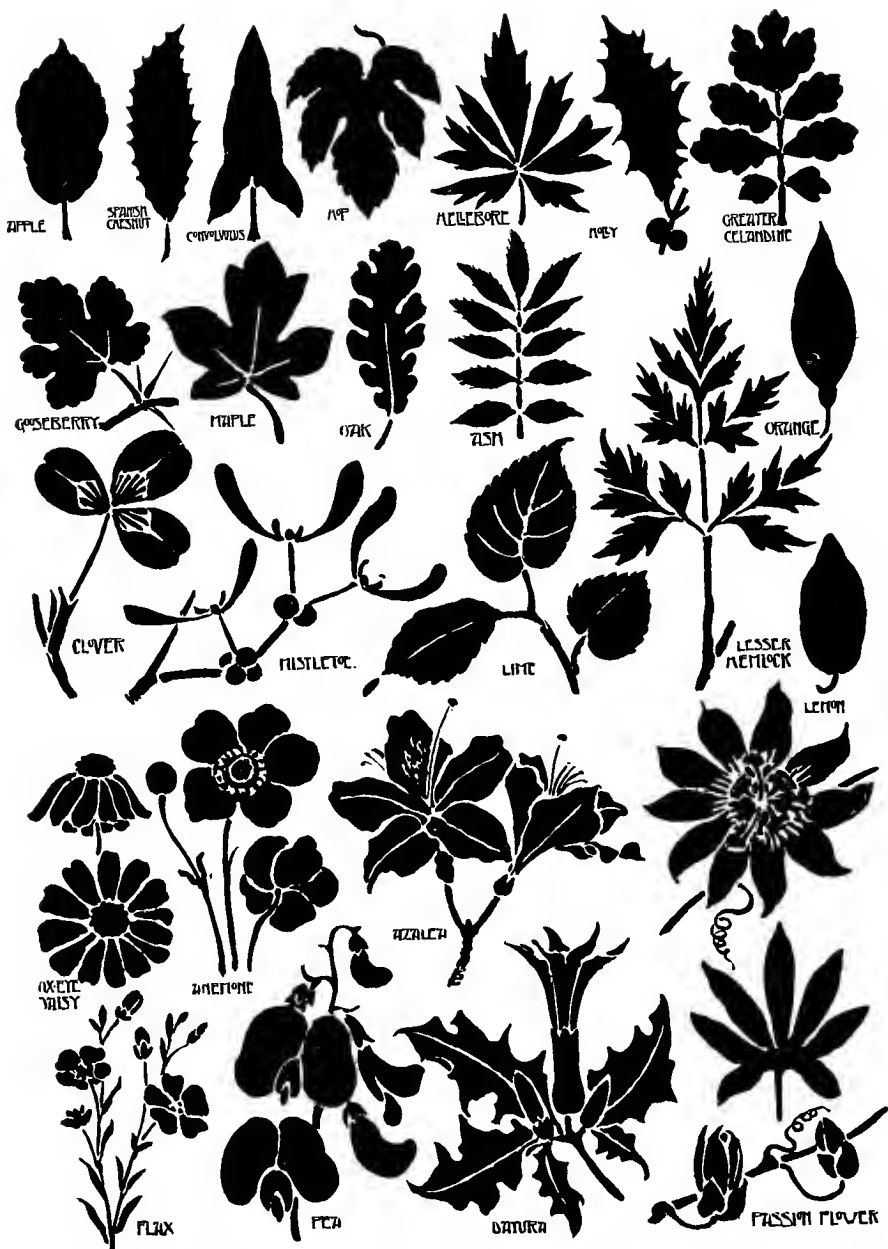


BRUSH FORMS AND BRUSH EXPRESSION OF ORNAMENT.





PLATE XXII.



BRUSH EXPRESSION OF LEAF AND FLOWER FORMS IN SILHOUETTE.

[To face page 27.]



the exercise of more care and accuracy, and also is a greater test in correct drawing with the brush.

Studies of this nature are of the utmost value for the education of the student, as they serve to form useful habits of keen observation of the model's construction and proportion of parts; for he will be all the more anxious to avoid mistakes in drawing, knowing that it will be almost impossible to correct them afterwards.

Direct brush-work expression, or "silhouetting," of plant forms enables one to gain a greater knowledge of the correct shapes of leaves, flowers, and foliage, &c., in a much shorter time, than that derived from the making of such studies, from nature, with the point or pencil, in outline; and the image or typical shapes of each plant will be more effectually fixed in the memory when executed in the former method, for the very good reason that images or shapes are always better seen and remembered when presented in the "mass" than in "line" drawings.

On the other hand, it goes without saying, that, in silhouette studies, we miss the beauty of many valuable details seen in the natural specimen, which can be so well expressed in pencil or pen drawings, such as the venation and turn of the leaf and flower petals, the growth junction of stems and leaf axils, and all the variations of light and shade. Brush-drawn exercises from plant life are, however, recommended as a valuable aid to the student or designer in their ordinary work, and as an alternative method of decorative expression.

In beginning studies of this kind from nature it is advisable to select single leaves and flowers, and make repeated copies of them. Progressive examples of such are given on Plate XXII. After representing simple forms from nature, more important sprays of flowers and foliage may be attempted, as on Plate XXIII.

The design I have given on Plate XXIV. is an example of direct brush-work, and is intended for the decoration of a title-page. This example is an illustration of the expression of "mass" in ornament, and the sea-horse panel on Plate XXV. is an example of brush-drawing rendered in "line."

PLATE XXIII.



BRUSH EXPRESSION OF PLANT FORM IN SILHOUETTE.

[To face page 28.

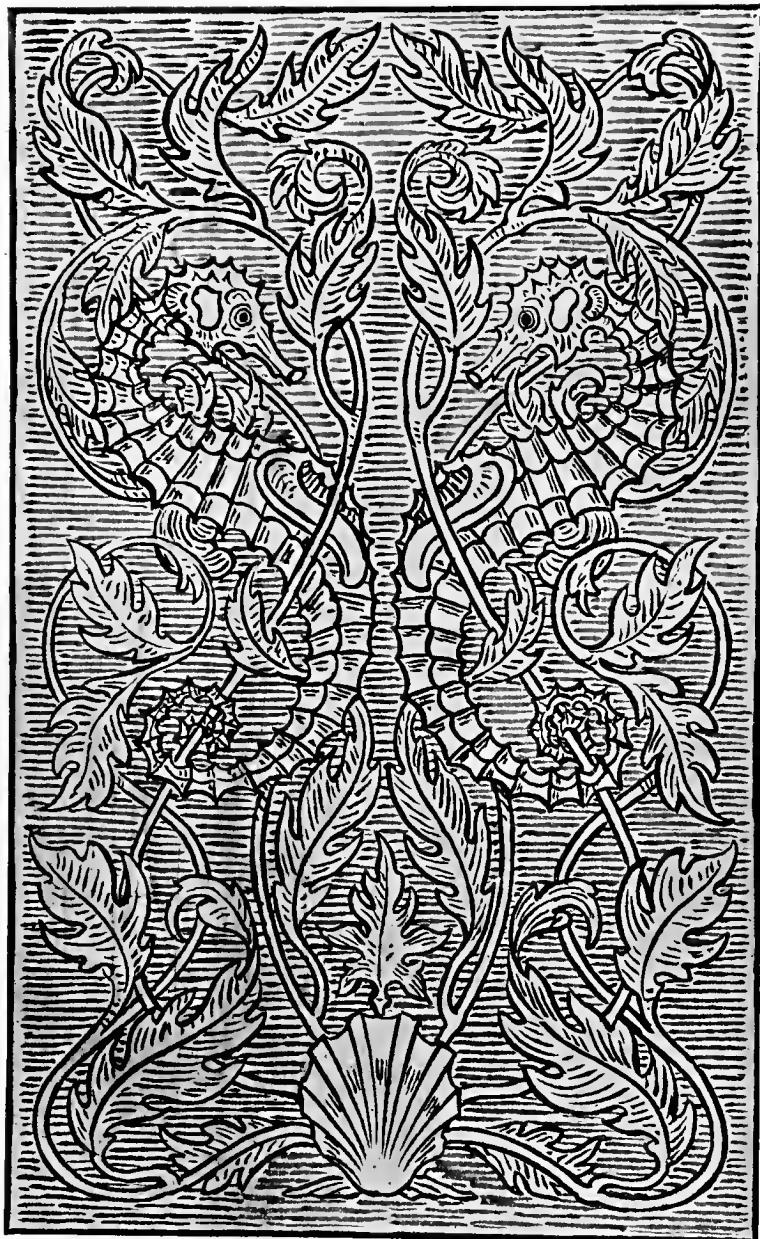






DESIGN FOR TITLE PAGE IN BRUSH DRAWING.

[To follow Plate XXIII.]



EXAMPLE OF BRUSH DRAWING IN "LINE."

*{To follow Plate XXIV.*





## CHAPTER V

### STENCILLING

STENCIL-CUTTING, and designing for stencils, being one of the most elementary divisions of Art craftsmanship, may appropriately be introduced to the notice of the young student in these pages, as it forms an additional "hand and eye" subject for those pupils who have spent some time in the study of elementary design; and, as an interesting variation in the progressive work of the young designer, I would strongly recommend the subject to the attention of teachers and students.

The materials required for the work are few and simple in character. A sheet of cartridge or "Whatman's" paper—or, better still, what is known as the "Willesden" double-waterproof paper, a pocket-knife, sharp at the end of the blade, a sharpening stone, a few circular steel punches of various sizes, and a sheet of glass, lead, or zinc, to cut the stencil on, are all the materials that are wanted for the cutting out of the design.

In designing for stencil plates, the main objects to aim for are clearness and boldness of pattern. Simplicity of effect, the avoidance of detail, and thin lines should characterise a good stencil design, these being, in fact, the integral parts of the *stencil principle*.

As one of the first lessons in stencil-cutting, a very simple design or drawing of an object, such as the butterfly at Fig. A, Plate XXVI., or the border at B, should be made direct on the paper that is to be used for the stencil plate. With a moderate amount of care, these designs may be easily cut. The design at B may be used as a border, or it may be repeated in any direction to make an "all over" checker pattern.

Great care must be used when designing for stencil work to make the "ties" come in such places that they may not only explain the drawing, but will of themselves be so arranged as to form part of the ornamental features, and so "help" the design. In illustration of this, the student is referred to the semicircular lines, where the "ties" are carried through the large central forms on Plate XXVIII., and those in the oblong panel, Plate XXIX.

The diagram C, on Plate XXVI., is given as an example of the kind of stencil that provides a good lesson in accurate cutting; here, and in all cases of circular designs for stencils, compasses should be used to obtain the requisite accuracy, and small circles and dots should be made with steel punches.

At D, on the last-named plate, is an example of a

PLATE XXVI.



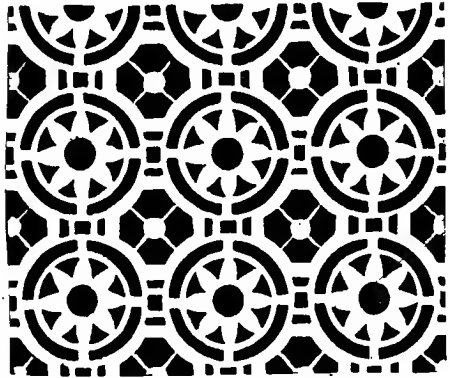
A



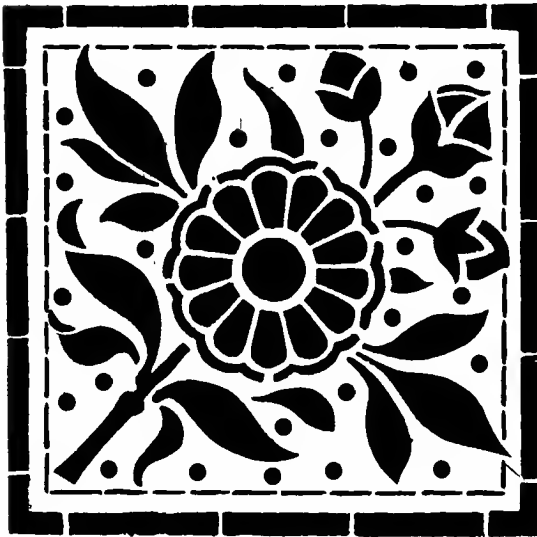
B



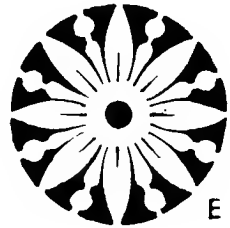
C



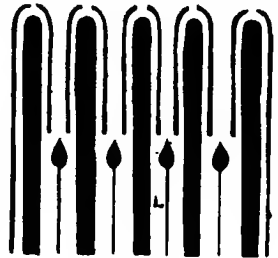
D



F



E



G

EXAMPLES OF STENCILLED ORNAMENT.



diaper pattern designed on a square, and so repeats in any direction. This is a type of a pattern in which two stencil plates may be used; the flowers inside the circles may be cut in one stencil and all the rest of the pattern in another, which would admit of two colours being effectively used in the pattern.

Broadly speaking, there are two ways of cutting the pattern for a stencil: one, where the pattern is cut out of the plate, and another where the ground-work is cut out, the ornament in the latter case being expressed by the colour of the surface that may receive the stencil impression. The first method is illustrated at Figs. A, B, C, F, and G, on Plate XXVI., and the second method is shown at Fig. E. The method where the ground is cut away, leaving the pattern, is by far the more difficult in practice, as it requires the greatest possible care to keep the drawing correct. Before cutting a pattern of this kind, the student should paint in the ground-work in black, and not the parts that are intended to show as the ornament.

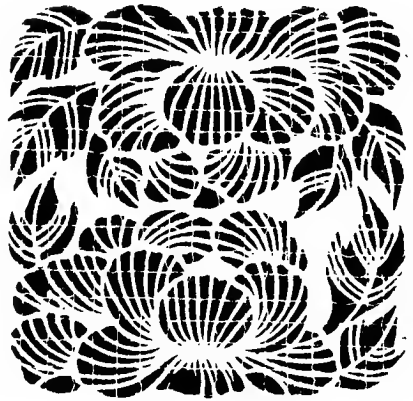
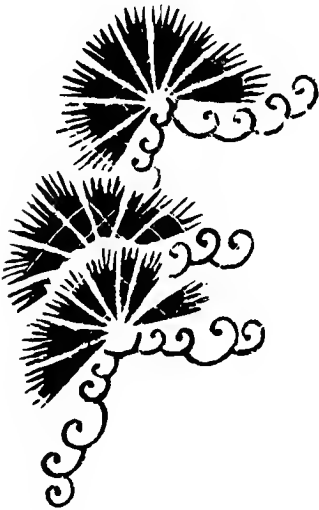
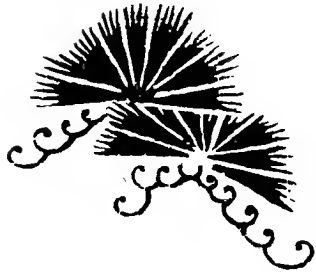
Fig. F, on the above plate, is a free filling of a square form, the dots on the ground showing the use of the steel punch. Fig. G is given as an illustration of straight line work, and is an example of a very useful exercise in cutting.

Stencil plates are very extensively used by the Japanese for all kinds of decoration, but principally for the ornamentation of silk and cotton fabrics, where, for this purpose, stencils take the place of our block and roller system of printing fabrics.

The Japanese stencil-cutter begins his work by placing several sheets of thin strong brown paper on the top of each other, the uppermost sheet having the pattern drawn on it, and cuts through the lot at once, thus obtaining several accurate and similar cuttings, he then takes two sheets and places them accurately together, getting the correct fit by means of "register" holes or marks at the top and bottom of his sheets, but just before pasting or gluing the pairs of plates together he arranges a neat net-work of fine silken threads on the top of the lower plate, these threads being securely fastened between the two sheets of the stencil, in order to give an additional strength to the stencil plate, so that it may last better under the wearing action of the stencil brush, which is very great, owing to the numerous impressions the plate is usually required to produce.

Plate XXVII. is occupied by a few impressions taken from a Japanese stencil plate. The sharp clean cut, which may be noticed, is such as only the deft fingers of a Japanese can accomplish, and this work is so perfect of its kind that no European can rival, or hope to compete with it successfully. The light thin lines, indicating the silken net-work, may be seen in the above impressions, and although the Japanese designer does not intend these lines to be seen in his finished work, as they are usually obliterated by the stencil brush, yet, if by chance they assert their presence, they often add a beauty to the work than otherwise.

PLATE XXVII.



EXAMPLES OF JAPANESE STENCIL-CUTTING.

[To face page 32.]





PLATE XXVIII.



STENCILLED DESIGN FOR AN "ALL OVER" SURFACE DECORATION.

*[To follow Plate XXVII.]*







DESIGN FOR A PANEL DECORATION IN STENCIL WORK.

[To follow Plate XXVIII. and to face page 33.]

The Japanese obtain great varieties of decorative effect in their stencil work, as in the cases where two or more plates are used to complete one pattern, or picture, thereby admitting of the use of two or more colours, or shades of one colour ; also, another, and a very common use in which stencil plates are employed by the Japanese artist, is in the part production of pictures. The stencil plate, which is occupied by a pictorial composition, is used to get a first impression of the subject, and this impression is finished off by the artist with his brush and colours, and often with his fingers, which he uses to get a softened or shaded effect while the original colour is still moist. It may thus be seen that the possibilities of stencil decoration are almost endless in the hands of the ingenious Japanese.

The stencil pattern on Plate XXVIII. is an example illustrating the *stencil principle*, which combines clearness and boldness, without any fine or delicate details, and, as before mentioned, the "ties" here are so arranged as to form part of the pattern, an example of a useful rule to observe in designing for stencils. This pattern is suitable for a wall or for the decoration of a hanging, and is designed to repeat in both directions of height and width.

The design on Plate XXIX. has its principal lines and masses controlled in their disposition by the enclosing lines of the oblong panel.

The pigments or paints used in stencil decoration may be either oil colours, water colour, or tempera, the latter being a mixture of powder colours and pure gum, or size. If

water colours or tempera are used, the paper of the stencil plate must be rendered waterproof by a coating of thin oil varnish, or painter's "knotting" varnish, or the Willesden waterproof paper may be used. Stencil brushes of all sizes may be obtained at any colour shop, and common dark brown paper will answer the purpose of stencilling light-tinted patterns on, and the lighter shades of brown paper will do admirably for the reception of any dark tones of colour. Ordinary writing ink can be used for black impressions, especially if it is a little thick or old in the bottle, and when using ink, or ordinary colours, a palette of porcelain, wood, or glass should be used on which to distribute the colour and charge the stencil brush before using it on the stencil plate.

## CHAPTER VI

### INTERLACING AND STRAP-WORK ORNAMENT

THE interlacing of linear forms in design has, from prehistoric times, always had a peculiar fascination for ornamentists. The first ideas of such work may have been suggested by the utilitarian art of weaving and plaiting grasses and twigs together to form the mats which were used as one of the earliest kinds of human clothing, or it may have been suggested by the innumerable crossings and interlacings of the twigs and stems of trees and various plants. Whatever may have been the origin, there is always a delightful mystery and weirdness in the effect produced by the crossings, re-crossings, interlacing, or weaving of the uppermost branches and stems of large trees when the sky is seen between the interlacings; and in this effect is also seen the satisfying elements of grace, delicacy, and strength—qualities of the first order in any satisfactory composition of ornament.

Strap-work is the natural development of linear inter-

lacing—a mere broadening of the line produces the strap—so it goes without saying that the principles which govern the interlacing line are also guides for the production of strap-work in ornament. More than three-parts of the ornament and decoration of the savage tribes, and Saracenic or Arabian, Byzantine, and Celtic ornament are composed of interlacing lines and strap-work. It enters also very largely into the carved ornament of the Elizabethan Renaissance, the decoration of Italian and French book-binding, German goldsmiths' work of the sixteenth and seventeenth centuries; and the celebrated Oiron or Henri-Deux pottery ware is chiefly characterised by its decorative strap-work.

Celtic twistings and interlacings are the most ingenious and exhaustive in this great order of ornament. Almost everything, whether derived from natural or artificial sources, underwent a change, or was ultimately developed, or "corrupted," in the hands of the Scandinavian or Celtic artist, to every imaginable form of knots and twists, some of the work being exceedingly clever and beautiful. (See Fig. 2, Plate XXXI.)

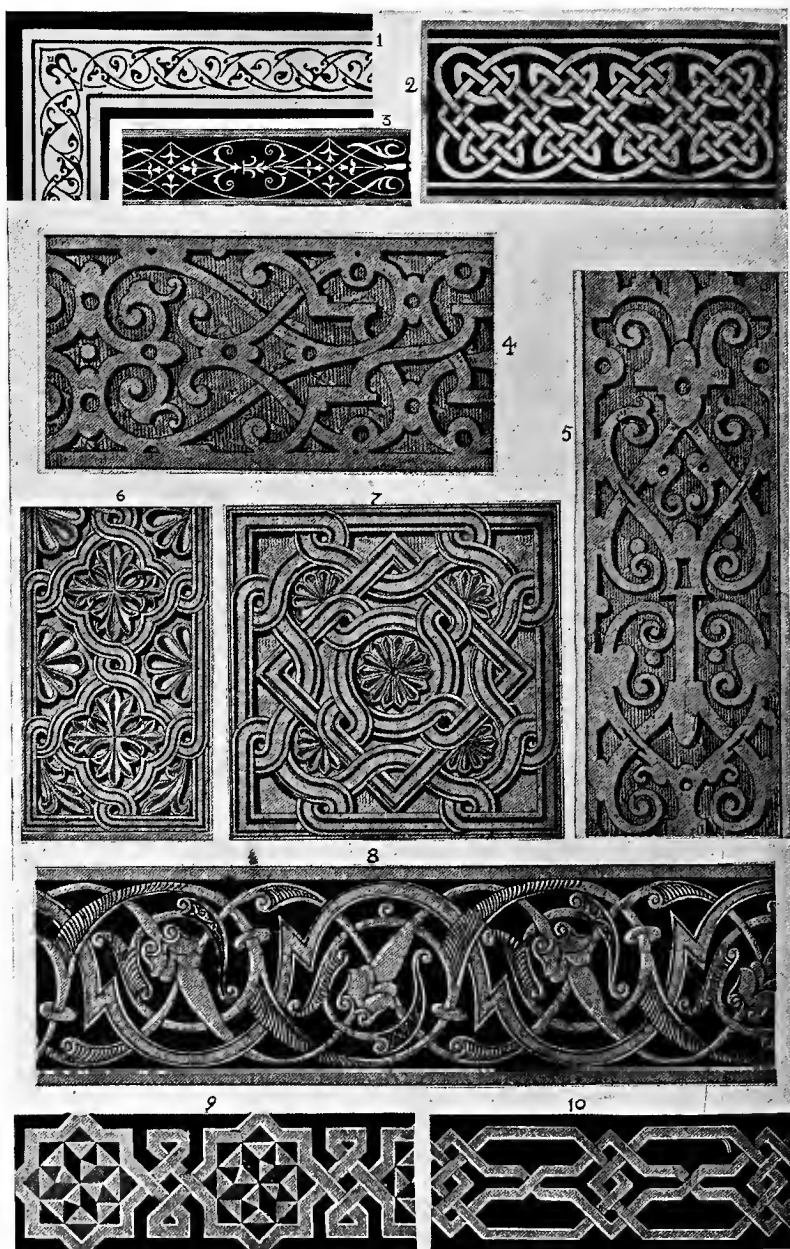
In designing interlacing and strap-work ornament, the chief thing to do is to make the lines cross at a right angle, or as near as possible in that direction. The lines should intersect or cross over, as cleanly as possible, in a direct manner—that is to say, they should never "branch" out of each other, or cross at an acute angle. Figs. 45, 46, and 49 on Plate XXX. clearly illustrate this law, and











INTERLACING AND STRAP-WORK ORNAMENT.

1, 8, 9 AND 10, ARABIAN. 3, FRENCH. 2, CELTIC. 4 AND 5, ELIZABETHAN.  
6 AND 7, BYZANTINE.

most of the illustrations on the same plate explain it further.

Effective interlacing work may consist of curved lines only, as in Fig. 43; the Assyrian guilloche, and Figs. 54 and 55, on Plate XXX., and Fig. 8, on Plate XXXI., an example of Arabian work ; or of straight lines alone, as in the Arabian borders at Figs. 9 and 10, on the same plate ; or, again, the most satisfactory arrangements are seen in the marriage of the straight and curved lines as in the Celtic example, Fig. 2, and in the Byzantine panel at Fig. 7, on Plate XXXI. Further examples of this kind may be seen in the constructive lines of the Italian book-cover decorations at Figs. 51, 52, and 53, Plate XXX.

It is characteristic of Arabian interlacing to use the straight-lined geometric interlacing and the curved-line variety singly, in different compositions, and more rare to find them used together in one scheme of ornament.

Byzantine strap-work is pure in its lines, and is usually of a high order as constructive design ; it is often found accompanied by whole or half rosettes, or symbolic forms, occupying the interstices, as at Figs. 6 and 7, Plate XXXI. Elizabethan strap-work is impure as such, its curved lines generally ending in scroll-work, instead of being carried through the composition in continuity. (See Figs. 4 and 5, Plate XXXI.) In these Elizabethan examples there may be seen, in the bract-like forms at the sides of the curves, and in other places, the influence of Arabian work, and in the

pierced holes and interpenetrations we have reminiscences of cartouche and shield-work.

Cartouche-work, which seems to be the link between ornamental shield-work and strap-work, may be seen on the German cup of 1620 date, designed by Wechter, and illustrated on Plate XXXII. The cartouche-work, on this example, occupies the surrounding portions of the divisions where the masks are placed. This cup is a good example of the kind of work produced by the German goldsmiths of the late Renaissance period, the earlier half of the seventeenth century. It is composed, as may be seen, almost entirely of cartouche and strap-work; the design is ingenious, but overdone, and suffers for the want of some plain surfaces. It cannot be denied, however, that, when executed in gold or silver, the effect would be extremely rich and sparkling.



GERMAN CUP IN SILVER BY C. WECHTER, DATE 1620, ILLUSTRATING CARTOUCHE-WORK AND STRAP-WORK.

[To face page 38.





## CHAPTER VII

### SOME APPLICATIONS OF DESIGN AND ORNAMENT

It is proposed, in this chapter, to consider design and ornament as applied to the construction and decoration of relief-work, and objects in the solid, and also some developments of pattern and other features concerning surface decoration.

In the matter of designing shapes of objects in metal, pottery, glass, wood, and stone, &c., a certain architectural rhythm ought to be aimed for, which should be in accordance with the fitness of the object, as to its use, and capabilities of the material in which it is made. For example, the contour of the mouldings and the space widths of the various parts of an article that is to be made in pottery should be quite different from those of an object that is made in stone on the one hand, and metal on the other. The artistic laws which govern the proper construction of an object that has any pretensions to art, are, in every case, similar; but, in the carrying out of these laws, we must bear

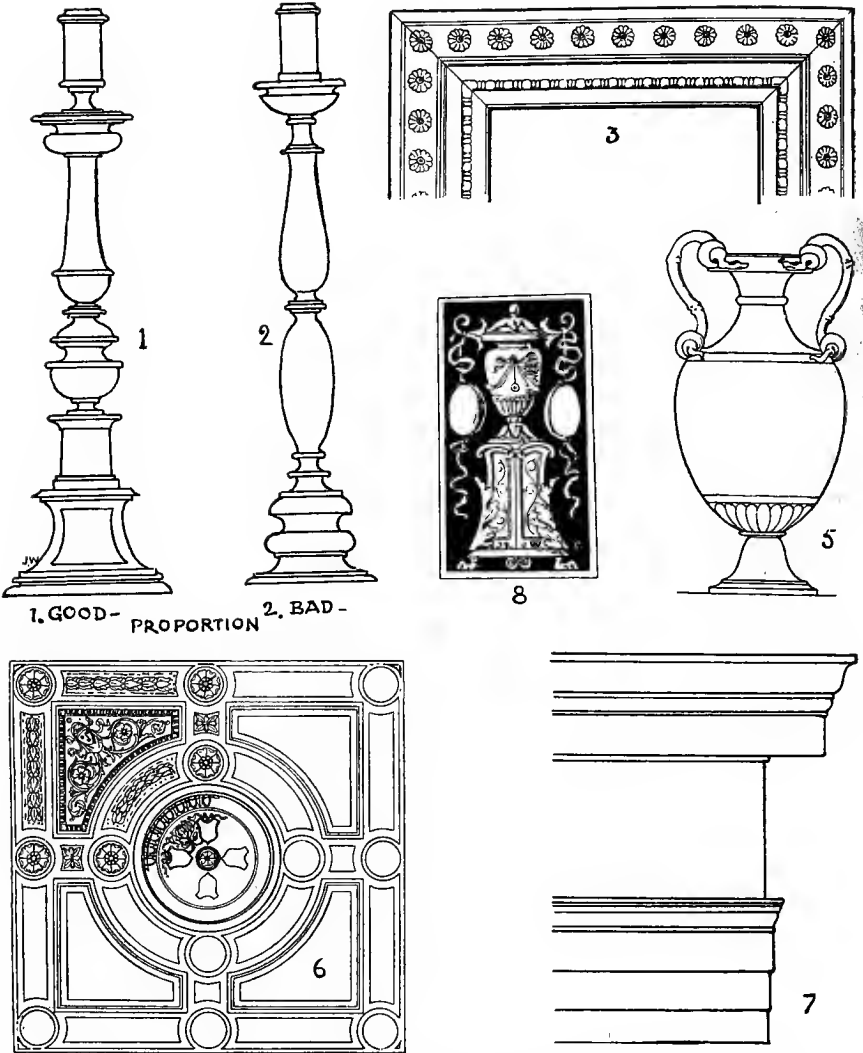
in mind the nature of the material we are designing for, and the use for which the object is intended : it then simply becomes a question of "treatment." For example, it is wrong to make a design for cast iron, or bronze, do duty as a design for chiselled iron, or brass, and the mouldings and divisions on a silver candlestick will admit of being finer and more numerous than the same features on a vase made in pottery. Common earthenware, and the finer porcelain, must be treated in design distinctly different, according to the capabilities of the material, if we are to get artistic fitness. The paperhanging design that resembles the silk brocade is an artistic failure, and even the printed textile must not simulate the effects produced by the warp and shuttle. The characteristics, limitation of the material, and utility of the object, ought always to be borne in mind by the student or designer.

When designing for objects in the "round," or relief, or for anything having architectural pretensions, one of the first considerations is to keep in view the law of "proportion."

Although we cannot attempt to lay down any arbitrary rules as to proportion in the abstract, or even as to the relative dimensions of space divisions in an object, still there are certain sizes and measurements that look better than others, when in close relation, and it is not a difficult matter to point out what would be generally conceded as "bad" proportion. If we examine the candelabra at Figs. 1 and 2, on Plate XXXIII., we shall find that Fig. 1



PLATE XXXIII.



1. GOOD- PROPORTION. 2. BAD -

ILLUSTRATIONS OF PROPORTION, RATIO, AND RELATION OF SPACE AND FORM IN OPPOSITION; ALSO, THE WANT OF PROPORTION.

[To face page 47.]

illustrates an example of good proportion, because the space divisions, that are adjacent to each other, are unequal in height, and are composed of varying shapes ; the profile or contour of the object changes in an agreeable manner, adding an interest to the whole form, and each part pleasantly contrasts with the part immediately above or below it. There is also one dominant division, consisting of the upper part of the shaft, which is greater in height dimension than any of the other parts. This object, therefore, fulfils the main conditions that ought to be observed in order to obtain good proportion in an example of this kind. We shall understand this more clearly by an examination of Fig. 2, which is an example of "bad" proportion. Here the two greatest divisions of the shaft, that come next to each other, are almost equal, and "equality" being antagonistic to proportion, ought always to be avoided ; the divisions of the base are also too equal in height measurements, and are too much alike in their soft contours. There is, also, not enough contrast in the shapes of these divisions, most of the profiles being composed of similar curved, or segmental lines, and not enough use is made of the straight line, in this connection, as a contrasting element ; and, finally, there is no single dominant feature to give the needed expression of good proportion, which is seen in Fig. 1.

The vase form at Fig. 5, on this plate, is a further example of good proportion, as seen in the changing curves of its contour, and in the essential inequality of its height divisions.

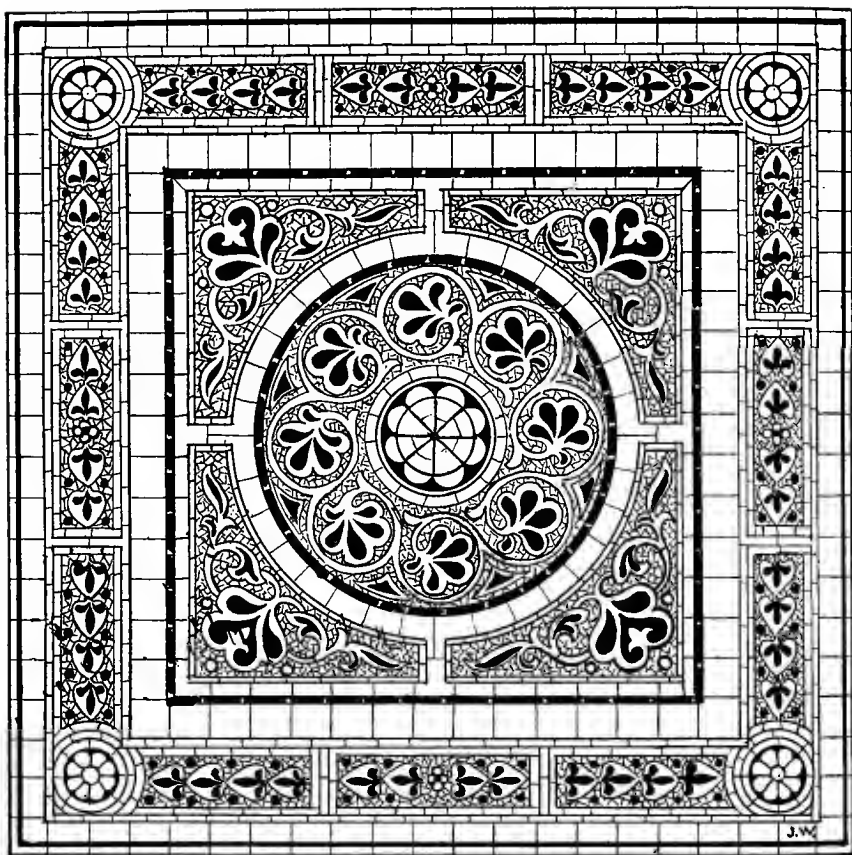
The Greeks were great masters of proportion, in their architecture, figure sculpture, vases, and other objects of minor art. Fig. 7, on Plate XXXIII., is from a Greek Ionic entablature, an examination of which will reveal to us that the secrets of their well-proportioned work in architectural features were the dominant division, as in the frieze, and the inequality of the height measurements of their mouldings, especially where the latter came near together. The Greek architect would never make two mouldings come together that had the same width, or that were of the same section, and even the profiles of his mouldings were derived from conic sections, rather than from the circle, so great was his love for the beauty of proportion and variety of artistic expression.

Fig. 3, on this plate, is another example of good proportion. It will be noticed here, again, that the space divisions of this frame are unequal, and that the dominant division is further emphasised by its rosette decoration.

Fig. 8 is given as an example of a well-proportioned panel, both as regards the ratio of breadth to length, and as to the quantity of decoration in relation to the ground space. In panels of any shape no hard and fast lines can be laid down for the quantity of ornament introduced, or amount of ground space to be left plain, as this would vary very much according to the uses and position of the panels. For instance, in a panelled room, the lower or dado panels may be left empty, and the mid-panelling on the "field" of the wall may also look quite well with little or no decoration,



PLATE XXXIV.



TESSELLATED AND MOSAIC FLOOR DESIGN, SHOWING PROPORTIONATE SPACES AND DIVISIONS IN THE BORDERS AND PANELS.

[To face page 43.]



while if the frieze, ceiling, or the soffits of arches be panelled, they would admit of being richly decorated with carving or painting. In the latter cases, and in panels for cabinets and smaller objects, a fairly safe rule is to allow about two-thirds of the panel to be occupied by the ornament, and the remaining third for the ground, which is about the proportion shown in the panel at Fig. 8.

It is obvious that a square, being equal in length and breadth, can have no proportion in itself, but we can divide it into any number of agreeable subdivisions, by arranging circles, octagons, or smaller squares of different sizes within the figure, as may be seen in the square ceiling at Fig. 6.

By the use of the larger circular lines with the angle lines of the square, a new feature, the spandrel, is obtained, which is distinctly different in shape to either the square or circle, but is in complete harmony with both. The varied character of the ornament, in the panels, bands, and moulding decoration, also helps to make the whole composition agreeable.

Another example of the treatment of a square is shown on Plate XXXIV., which is a design for a floor, in mosaic. Proportion is here obtained by the relation of size between the border and inner square panel, assisted by the relation of the large circular panel to both border and spandrels, and is further helped by the varying or unequal widths of the main border, and the lines and spaces forming subsidiary borders which surround it. Contrast in the ornament, which fills the various spaces, is obtained by the

flowing character of the ornament in the circle as opposed to that of a "set" character in the outer border.

A still further illustration of the harmony of unequal space divisions, in the decoration of a square form, is shown in the old Italian embroidery design on Plate XXXV.

The two illustrations of Gothic tracery design for panel fillings, on Plate XXXVI., are good examples of their kind; but the better design of the two is the lower panel at B, for, although it is divided into four equal divisions in width, the central feature embraces two of these divisions, and being of quite a different character in design to the filling of the surrounding part, which acts like a border, a sense of proportion and harmony is felt, which is wanting in the design of the upper panel at A, where the width is divided equally into three parts, and consequently the middle division is not of sufficient importance in size to contrast agreeably with the outer ornament.

In designing for plates or dishes, the proportionate relation between the centre and border should receive careful attention. An agreeable width for borders of plates, including the bevel, between border and centre, would be about one-sixth of the diameter of the plate. This proportion is shown on the design for a majolica dish, on Plate XXXVII. It may be noticed, in this design, that the radiating border is of a simple and restful character, which helps to counteract the revolving appearance of the figures in the design of the centre.

The illustrations of good and bad proportion, given in the

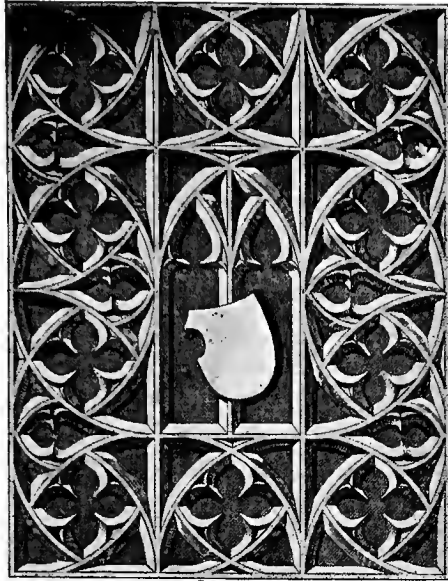
PLATE XXXV.



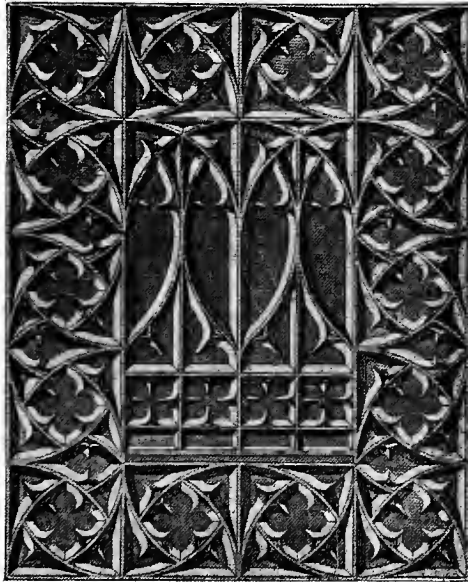
ITALIAN ALTAR CLOTH, 17TH CENTURY, ILLUSTRATING PROPORTIONATE SPACE DIVISIONS  
IN THE WIDTHS OF THE BORDERS AND CONTRAST IN THE ORNAMENT.

[To face page 44.





A



B

GOthic CARVED WOOD PANELS GERMAN, 16TH CENTURY, ILLUSTRATING AT A A WANT OF PROPORTIONATE SPACING IN THE TRACERY, AND AT B A MORE CORRECT FEELING FOR PROPORTION.

[To follow Plate XXXV.]



PLATE XXXVII.



DESIGN FOR A MAJOLICA DISH.

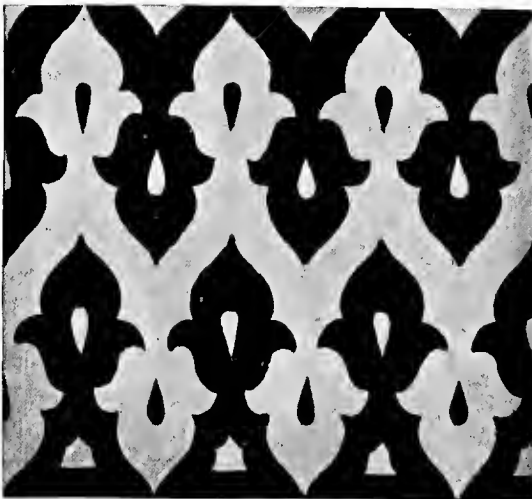
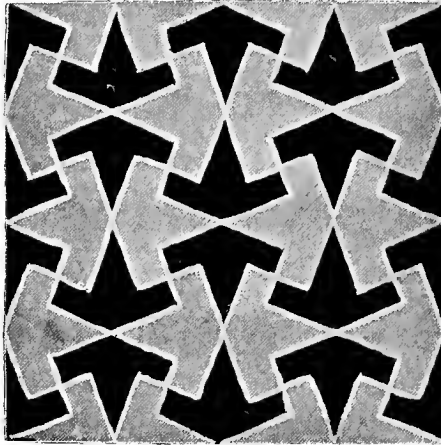
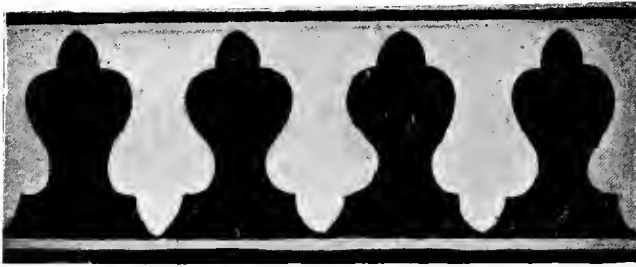
[To follow Plate XXXVI.]







PLATE XXXVIII.



EXAMPLES OF ARABIAN COUNTERCHANGE ORNAMENT.

[To face page 45.]

last few pages, do not, by any means, exhaust the subject ; but it is to be hoped that sufficient has been said to enable the student to form a correct estimate of this important subject in relation to design.

#### COUNTERCHANGE ORNAMENT.

The class of ornament known as “ counterchange ” negatives the law of proportion by the very nature of its construction. In counterchange, as may be seen in the Arabian examples, on Plate XXXVIII., the ornament changes exactly with the ground, or occupies a similar shape to that formed by the ground that comes next to it, or on either side of it, as at Fig. 1, on this plate. This kind of ornament is seen at its best in Arabian, or Saracenic decoration, both in its straight-lined and curved varieties. It has also been used by other nations, notably in the appliqué embroidery work of the Spanish and Italians of the seventeenth and eighteenth centuries. Its origin is from heraldic sources, and at best it must be considered more of a device, or puzzle, than good ornament, for any kind of ornament that lacks proportion, and which leaves you in doubt as to which is the ornament, which the ground, as counterchange certainly does, can hardly be considered good ornament. In some situations, however, where diaper-like ornament is wanted, the geometrical varieties of counterchange are useful as decoration.

## SURFACE PATTERN DESIGN.

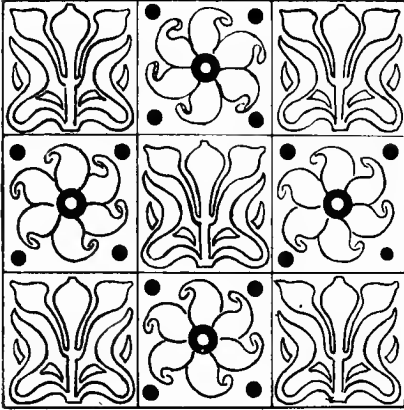
Surface repeating patterns for textiles, paperhangings, tiles, &c., that are intended to be produced by printing, weaving, or stencilling, are usually designed on the square or the diamond, Figs. 2 and 13, Plate VI.; the lozenge, Figs. 7 and 15; the "ogee" shape, Figs. 8 and 12; or the hexagon, Figs. 5, 11, 14, and 16, on the same plate. Diagrams illustrating what is known as "spotting," and "powdering," are shown at Figs. 15 and 16, on this plate.

Applications of designs to surface decorations are illustrated on the Plates XXXIX. to XLII. Figs. A and B, on Plate XXXIX., are examples of designs based on the square, and are known as "checkers." C is a simple repeating pattern, based on the lozenge—in this case, a square set angle-wise; and the design at D is constructed on the "ogee" shape. All of these simple patterns usually go under the name of "diapers"; but, correctly speaking, the true diaper is constructed on the ogee form, as at Fig. D.

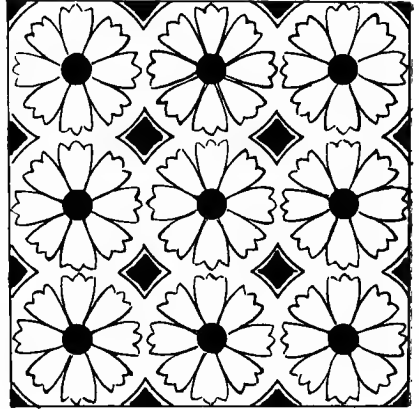
## THE DROP PATTERN.

The "drop" pattern illustrates an economical and effective method of getting a greater variety of pattern out of the width of the material than that adopted when designing by any other method for the decoration of textiles or paperhangings, and may be constructed on the lines of a lozenge, a diamond, or on two oblongs placed

PLATE XXXIX.



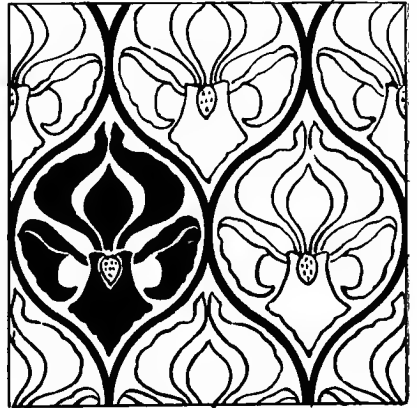
A



B



C



D

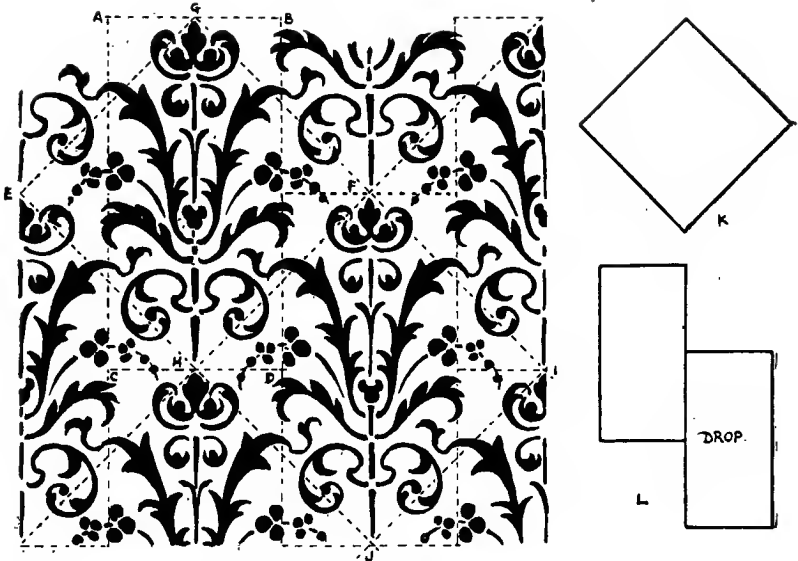
A AND B ARE EXAMPLES OF CHECKERS ; C AND D ARE DIAPERS.

[To face page 46-

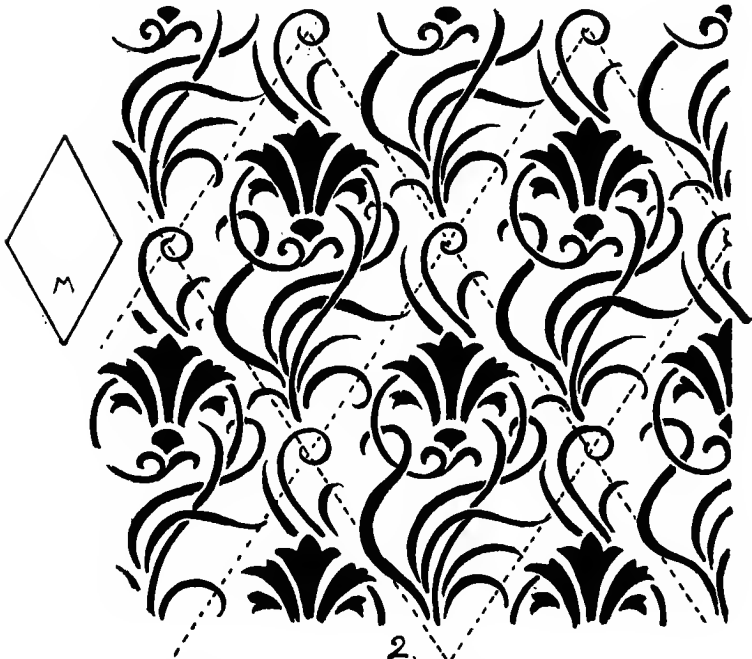




PLATE XL.



1.



2.

FIG. 1, AN ILLUSTRATION OF A SYMMETRICAL DROP PATTERN DESIGNED ON THE SQUARE PLACED ANGLEWISE, OR ON AN OBLONG.

FIG. 2 IS A DROP PATTERN DESIGNED ON A LOZENGE.



side by side, one of which drops half its length below the other, as at L, on Plate XL. In a pattern of the above nature, whether constructed on the lozenge, diamond, or on oblongs, the pattern drops half its length below the repeat, at either side of itself. Drop patterns may be bi-symmetrical, or unsymmetrical, in character. An example of a bi-symmetrical drop pattern is shown at Fig. 1, Plate XL. This pattern may be designed on the lines of a square lozenge, like the diagram K, or within the lines of an oblong whose dimension is that of a double square, as shown by the figure in chain-lines at ACDB, in Fig. 1. The square lozenge, which also contains a repeat of the pattern, is shown at GEHF. The construction lines of the lozenge and oblong, drawn on the pattern, explain the manner of obtaining the repeat.

The pattern at Fig. 2, on this plate, is an unsymmetrical "drop" designed on the diamond shape, the position of which, in this case, is upright, as in the diagram M. It will be seen that the repeats of this pattern follow, or "chase" each other, and do not "turn over" as in the former pattern at Fig. 1.

When patterns for paperhangings or textiles are designed on the lozenge or diamond forms, the latter should not be less in width than the length of one side of the lozenge or diamond, as anything less would make the proportion of the figure too acute to be agreeable.

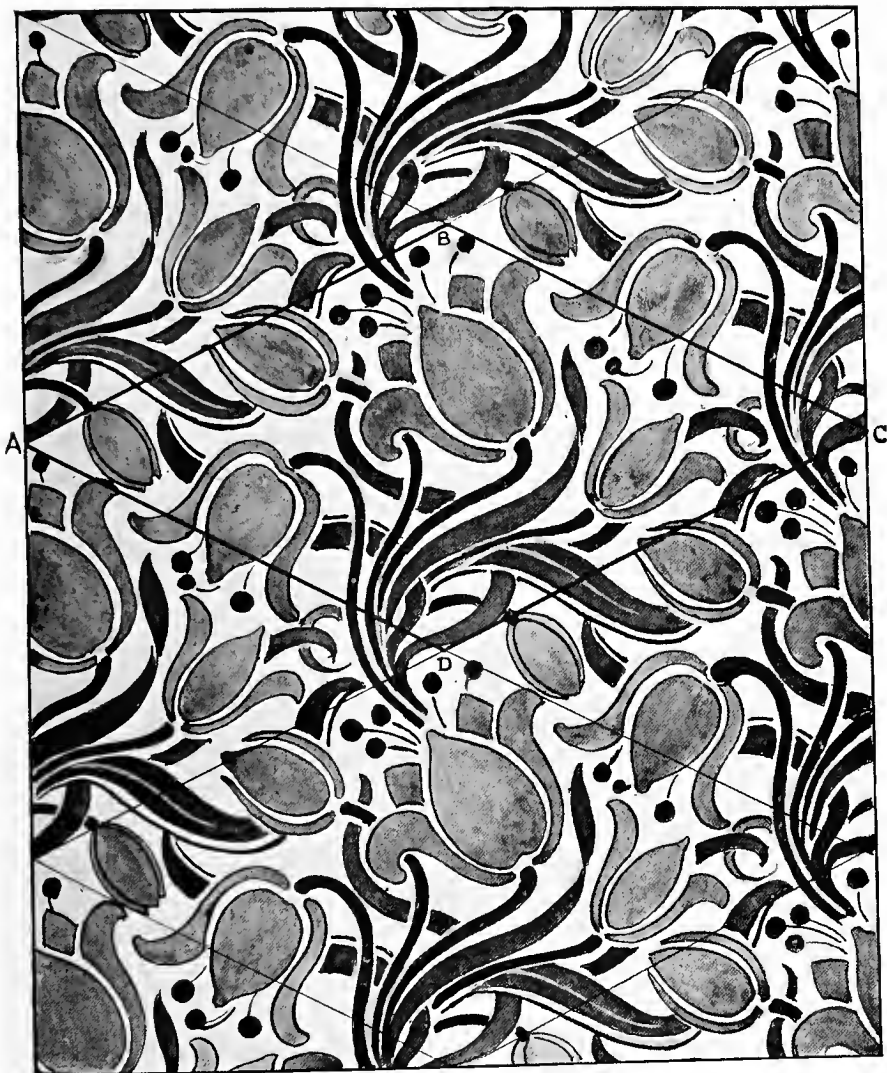
A design for a textile hanging, planned on the horizontal diamond, is given on Plate XLI. In this case the

principal features, or masses, are first put in, roughly, within the diamond shape; and afterwards, the leading lines of growth and their connections; then, lastly, the lesser details.

But before a design of this nature, the units of whose repeat are unsymmetrical, can be satisfactorily filled in, so as to give an "all over" effect, the portion of the pattern immediately over and under the line AB should be traced off, and carefully transferred to the corresponding position on the opposite line DC, and the portion previously designed, say at AD, should be, in a like manner, transferred to the line BC, and afterwards the whole repeat could be finished. This process will "prove" the pattern, and ensure the repeat to work in any direction. The diamond form, marked by the letters, on this plate, contains the whole unit of the repeat.

The design for a printed textile illustrated on Plate XLII. is another example of the drop pattern, and is constructed within the lines of a rectangle, whose height is a little less than three times its width, the chief motive of the composition being the waving line that runs continuously through the pattern. To make a design of this character, it is necessary that at least two rectangles should be placed together, as in the sketch, and one of them should be divided into two equal parts by a horizontal line, as at BA. It will also be necessary to extend the drawing, in some places, beyond these lines—in cases, for instance, where a leaf or a flower may require completion in drawing, when

PLATE XLI.



DROP PATTERN DESIGNED ON THE DIAMOND AS AT A, B, C, D.

*[To face page 48.]*



PLATE XLII.



PRINTED TEXTILE, DROP PATTERN DESIGNED ON THE RECTANGLE SHAPE.

[To follow Plate XLI.]



parts of them extend over the line. A reference to the sketch will make this clear.

When using the waved line in a drop pattern, it is best to make about half of the principal masses and smaller detail grow, say, from the waved line on one side of the curve, below, and the other half designed to grow from the opposite side of the curve, so as to get the requisite balance of parts. The student should also endeavour to get a well-ordered variety of form in the units of his pattern, so that the work may look interesting. It will be seen that the portion of the design drawn on the upper left half of this pattern coincides with that on the lower half of the rectangle, on the right, and the lower left half contains that part of the pattern which appears again on the upper half on the right.

THE END.

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